Vojta Maur — website export (English)

Vojta Maur

Creating is my basic instinct

www.vojtamaur.cz

Generated
2026-09-01T08:57:15+02:00
Public website
https://vojtamaur.cz/
Source build
`G:\vojtamaur-web\dist`
Mode
combined reflowable EPUB from finished static HTML
Articles included
82

Reflowable layout

This EPUB is not a fixed-page copy of the website. Font size, line spacing, and pagination adapt to the reading system; article content and order come from the finished build. Interactive embeds are replaced by links to their public versions.

English translation status

English routes come from the finished EN build. Any page using a Czech fallback is marked in the list below.

Included article pages

Concepts

2026-08-14 · Personal Work · translated

`/en/koncepty/`

Masks

2026-08-07 · Personal Work · translated

`/en/masky/`

Freeloaders

2026-05-21 · Personal Work · translated

`/en/prizivnici/`

Pilsen, 2026-05-01

2026-05-01 · Personal Work · translated

`/en/plzen-2026-05-01/`

Metaweb Article

2026-04-22 · Personal Work · translated

`/en/metawebovy-clanek/`

Clipboard Dump

2026-04-01 · Personal Work · translated

`/en/clipboard-smetiste/`

Temporary Entities

2026-01-02 · Personal Work · translated

`/en/docasne-entity/`

The Genome in Theodor's Spiral

2026-01-01 · Personal Work · translated

`/en/genom-theodorove-spirale/`

Anti-Language

2025-12-01 · Personal Work · translated

/en/anti-jazyk/

gatě

2025-09-01 · Personal Work · translated

/en/gate/

Worm ε

2025-09-01 · Personal Work · translated

/en/cerv-epsilon/

DullGPT

2024-07-01 · Personal Work · translated

/en/dullgpt/

The Boundaries of Privacy

2024-02-01 · Personal Work · translated

/en/hranice-soukromi/

Wave Functions

2024-01-01 · Personal Work · translated

/en/vlnove-funkce/

Cursor Trajectory

2023-08-01 · Personal Work · translated

/en/trajektorie-kurzoru/

Plant Records

2023-06-01 · Personal Work · translated

/en/zaznamy-rostlin/

Recursion in MS Word

2022-11-01 · Personal Work · translated

/en/rekurze-programu-ms-word/

Pseudopoem

2022-05-01 · Personal Work · translated

/en/pseudobasen/

Photogrammetry

2022-03-29 · Personal Work · translated

/en/fotogrammetrie/

Self-Portrait (Practical Graduation Project)

2021-06-01 · Personal Work · translated

/en/autoportret-prakticka-maturitni-prace/

A Brief History of Life on Earth

2021-03-01 · Personal Work · translated

/en/strucna-historie-zivota-zemi/

Life in Hromnice Lake

2021-01-01 · Personal Work · translated

/en/zivot-hromnickem-jezirku/

Reflections on the Limits of Imagination

2020-11-01 · Personal Work · translated

/en/uvaha-hranicich-fantazie/

Enhanced Perception of Luminance Differences

2020-10-02 · Personal Work · translated

/en/zvysene-vnimani-rozdilu-svetlosti/

Theorems of Life

2020-10-01 · Personal Work · translated

/en/teoremy-zivota/

Computer with Random Inputs

2020-09-01 · Personal Work · translated

/en/pocitac-nahodnymi-vstupy/

The Cyclical Hierarchy of Life

2020-08-01 · Personal Work · translated

/en/zacyklena-hierarchie-zivota/

Reflection and Space

2020-05-01 · Personal Work · translated

/en/odraz-a-prostor/

Myths About the Fibonacci Sequence

2020-04-02 · Personal Work · translated

/en/myty-fibonacciho-posloupnosti/

Metaprogram

2020-04-01 · Personal Work · translated

/en/metaprogram/

Recamán's Sequence in Turtle Graphics

2020-03-01 · Personal Work · translated

/en/recamanova-posloupnost-zelvi-grafice/

Lychrel Fractal

2019-12-01 · Personal Work · translated

/en/lychreluv-fraktal/

Linden Leaf

2019-10-03 · Personal Work · translated

/en/lipovy-list/

Prime Number Spirals

2019-10-02 · Personal Work · translated

/en/prvociselne-spiraly/

The Illusion of Contrast Between Vertical and Horizontal Stripes

2019-08-02 · Personal Work · translated

/en/iluze-kontrastu-vertikalnich-

horizontalnich-pruhu/

The Fibonacci Word Spiral

2019-08-01 · Personal Work · translated

/en/spirala-fibonacciho-slova/

Color, Shape, and Tone

2019-06-02 · Personal Work · translated

/en/barva-tvar-ton/

Human Vision

2019-06-01 · Personal Work · translated

/en/lidsky-zrak/

Personality Profile

2018-12-02 · Personal Work · translated

/en/portret-osobnosti/

Checkerboard Grid

2018-12-01 · Personal Work · translated

/en/sachovnicovy-rastr/

Distortion of Information

2018-08-01 · Personal Work · translated

`/en/pokriveni-informace/`

Two Rhythms

2018-04-01 · Personal Work · translated

`/en/dva-rytmy/`

Human-Selected Random Numbers

2018-04-01 · Personal Work · translated

`/en/nahodna-cisla-zvolena-clovekem/`

Irregular Breathing

2018-03-01 · Personal Work · translated

`/en/nepravidelny-dech/`

From the Perspective of a Shell

2018-03-01 · Personal Work · translated

`/en/z-pohledu-musle/`

Mold

2017-11-01 · Personal Work · translated

/en/plisen/

Disruption of the Regular Grid

2017-10-01 · Personal Work · translated

/en/naruseni-pravidelneho-rastru/

Resurrection

2017-04-02 · Personal Work · translated

/en/zmrtvychvstani/

Color Average

2017-04-01 · Personal Work · translated

/en/barevny-prumer/

Tank

2017-04-01 · Personal Work · translated

/en/tank/

Sugar Cubes

2017-03-01 · Personal Work · translated

/en/kostky-cukru/

Street Art Library

2017-03-01 · Personal Work · translated

/en/street-art-knihovna/

Google App

2016-11-01 · Personal Work · translated

/en/aplikace-google/

From the City to Randomness

2016-01-01 · Personal Work · translated

/en/od-mesta-az-po-nahodu/

It doesn't matter which region you're from...

2015-10-01 · Personal Work · translated

/en/nezalezi-z-jakeho-kraje-jsi-prisel/

Weeds

2008-05-01 · Personal Work · translated

/en/plevel/

Recamán's Structure

2023-12-14 · Exhibitions · translated

`/en/vystavy-recamanova-struktura/`

Building Lots

2023-01-14 · Exhibitions · translated

`/en/vystavy-stavebni-pozemky-1/`

Random Number Generator

2022-03-27 · Exhibitions · translated

`/en/vystavy-generator-nahodnych-cisel-2/`

Sugar Cubes

2018-04-30 · Exhibitions · translated

`/en/vystavy-kostky-cukru/`

Random Number Generator

2017-06-18 · Exhibitions · translated

`/en/vystavy-generator-nahodnych-cisel/`

It Doesn't Matter Where You're From...

2016-08-14 · Exhibitions · translated

`/en/vystava-nezalezi-z-jakeho-kraje-jsi-prisel-2/`

Water Level

2016-04-04 · Exhibitions · translated

`/en/vystava-hladina/`

It doesn't matter where you're from...

2015-10-10 · Exhibitions · translated

`/en/vystava-nezalezi-z-jakeho-kraje-jsi-prisel/`

Poland - Masuria 2026

2026-06-19 · Travel · translated

`/en/cestovani-polsko-mazury-2026/`

Italy - Venice 2026

2026-06-10 · Travel · translated

`/en/cestovani-italie-benatky-2026/`

Thailand 2024

2024-03-10 · Travel · translated

/en/cestovani-thaisko-2024/

Greece 2020

2020-01-01 · Travel · translated

/en/cestovani-recko-2020/

Italy - Venice 2019

2019-07-01 · Travel · translated

/en/cestovani-italie-benatky-2019/

Tanzania 2019

2019-01-01 · Travel · translated

/en/cestovani-tanzanie-2019/

Norway - Lofoten 2018

2018-09-01 · Travel · translated

/en/cestovani-norsko-lofoty-2018/

Mexico 2018

2018-06-01 · Travel · translated

/en/cestovani-mexiko-2018/

Oman 2018

2018-01-01 · Travel · translated

/en/cestovani-oman-2018/

China 2017

2017-07-01 · Travel · translated

/en/cestovani-cina-2017/

England 2013, 2015, 2017

2017-06-01 · Travel · translated

/en/cestovani-anglie-2013-2015-2017/

Italy 2016

2016-07-01 · Travel · translated

/en/cestovani-italie-2016/

Morocco 2016

2016-01-01 · Travel · translated

/en/cestovani-maroko-2016/

Kenya 2012–2015

2015-01-01 · Travel · translated

`/en/cestovani-kenya-2012-2015/`

Portugal 2014

2014-01-01 · Travel · translated

`/en/cestovani-portugalsko-2014/`

Israel 2012

2012-01-03 · Travel · translated

`/en/cestovani-izrael-2012/`

Canary Islands 2012

2012-01-02 · Travel · translated

`/en/cestovani-kanarske-ostrovy-2012/`

Egypt 2012

2012-01-01 · Travel · translated

`/en/cestovani-egypt-2012/`

Concepts

August 2026

The notes below are an ongoing record of ideas and observations that have come to me over time. They are often neither fully thought through nor implemented, though they may be in the future. Or perhaps not—for some ideas, a simple note is sufficient. Some are dead ends, so there's no point in developing them further. But even so, they may be worth recording.

2023-02-24: NEURAL FILTER GLITCHES

I discovered by chance while working that when I try to enlarge an image in Photoshop using Neural Filters—and that image is in the CMYK color profile and contains larger transparent areas—a strange, but usually quite aesthetic, glitch occurs.

Here is a sample of 3 out of 28 images I've recorded:
concepts-2023-02-24-neural-network-glitches-1.jpg
concepts-2023-02-24-neural-network-glitches-2.jpg
concepts-2023-02-24-neural-network-glitches-3.jpg

2024-03-22: THE VISUAL RHYTHM OF WORKING ON A COMPUTER

I created a program that records every keystroke and mouse click while I'm working on the computer. Time progresses in the direction of normal typing, from left to right and top to bottom. A black dot indicates a recorded input; a white area indicates the absence of one.

Here is a sample of 3 out of 18 images I recorded:
concepts-2024-03-22-optical-rhythm-of-computer-work-1.png
concepts-2024-03-22-optical-rhythm-of-computer-work-2.png
concepts-2024-03-22-optical-rhythm-of-computer-work-3.png

Source code: concepts-2024-03-22-visual-rhythm-of-computer-work.py

2024-08-19: KUSHÍK'S POETRY

I was working on the computer, but my rat, Kushík, kept distracting me. He was climbing all over me, demanding attention, running across my desk and up my computer. He started to frustrate me a little. So I got angry, opened a blank MS Word document for him, and told him something along the lines of, "Go ahead and be creative if you want to do it for me."
So Kushík started running around on the keyboard.

This document was created: concepts-2024-08-19-kushikova-poetry.pdf

2024-12-05: THERMOZEPAM

I created my own program for viewing and editing thermographic photos for my Seek Thermal RevealPRO thermal camera. I couldn't find any suitable software for this camera on Windows, which is a shame, because its thermographic files contain temperature data that can be further processed.

I named the program Thermozepam because I'm satisfied with its design and find using it almost addictive. The program reads thermal TIFF files, allows you to change the image's color map

using colormaps from the matplotlib library, measure the average temperature of the image, determine the temperature mode, display the minimum and maximum temperatures, view a histogram, and—with a single click—display the temperature of a specific pixel. When saving, it can export a color-mapped PNG file and, optionally, enlarge it using interpolation.

Program screenshot: concepts-2024-11-10-thermozepam.png
Source code: concepts-2024-11-10-thermozepam.pyw

2025-12-05: A FLASH IN THE DARK

I had the idea to create an Arduino project in which I would place a laser inside an empty box (previously sterilized using a UV-C lamp). The laser would fire a one-second pulse at a random time (so that I wouldn't know exactly when it happened, but would know with 100% certainty that it would happen within, say, 10 minutes). If I managed to do this correctly, no observer would perceive the light pulse.

2026-01-31: SIMULATION OF A PINHOLE CAMERA

I tried to create a simple, functional pinhole camera in Python. Back in high school, I'd already built a real physical one, but it seemed to me that if I simulated it, I'd better understand how it works, because it's not enough to just punch a hole in a box, insert light-sensitive paper, develop it after exposure, and let physics do its job (however that might work). Here, on the other hand, the physics must also be simulated.
I tried to make the simulation as realistic as possible from an algorithmic standpoint, although my knowledge and the available computing power naturally remain limitations. For example, the

program uses forward ray tracing—that is, tracing light from the source toward the scene and the camera—instead of the more common backward ray tracing, which traces rays from the camera back into the scene. The forward approach is closer to the physical direction of light propagation, but it tends to be very computationally inefficient.

Examples of program settings and explanations of parameters: concepts-2026-01-31-pinhole-simulation-settings.txt
Source code: concepts-2026-01-31-pinhole-simulation.py

2026-03-02: SORTING PHOTO PIXELS

I attempted to sort the pixels of photographs using an algorithm. The idea was to roughly sort the pixels by HUE and brightness: arranging pixels along one axis (say, the x-axis) by HUE and along the other axis (say, the y-axis) by brightness. This rearranges the photo's pixels, but none disappear or are created. Nevertheless, the resulting photos lose their original meaning but retain their color atmosphere.

Source code: concepts-2026-03-02-photo-pixel-sorting.py

2026-04-13: RANDOM EXPLORATION OF THE INTERNET

For about two weeks, I devoted myself to randomly exploring the internet because I was curious to see what it looks like when it isn't recommended by algorithms. I tried various approaches.

The first (naive) approach was to create a program to enter and open randomly generated URLs. This was, of course, extremely inefficient; the space of possible URLs is too large, and the

existing ones are sparsely represented.

The second approach was to build my own crawler and feed it some bizarre seed URL (such as the website kdomivolal.cz). I then tried to filter the results using an LLM and focus only on the interesting ones (based on some defined criteria). This way, I found a lot of bizarre things to amuse myself, but nothing groundbreaking.

The third approach was much more fruitful and entertaining. I discovered that Certstream exists. It's a handy service that streams currently issued security certificates from around the world in real time. So it displays the URLs of websites that are either newly created or renewing their certificates.

Source code: concepts-2026-04-13-certstream-listener.py

I spent several days randomly clicking through these URLs. Most often, I came across scams (cryptocurrency-related, etc.), porn, AI, AI porn, tutorials on how to create AI porn, gambling, system login interfaces, and nascent websites (which have placeholder content or messages saying "we're working on it").

Through this process, I stumbled upon the website treeyo.my, which stuck in my memory because of its minimalist design and zero optimization for the viewer's attention. I also discovered that this website is truly a fringe part of the internet, as even Google hasn't indexed it yet. The Internet Archive did find it, but from CT logs—just like I did. The search ultimately paid off.

2026-05-06: EXHIBITION IN THE PACIFIC

It occurred to me to create 360° panoramic photos of the Pacific generated using AI. Then embed a QR code in them using AI (something like Illusion Diffusion) that links to a piece of art. Afterward, I could insert fake location metadata (such as GPS coordinates in the middle of the Pacific) and upload them to Google Maps.

Alternatively, I could take some real locations photographed with a 360° camera—say, from a single city—and then shift all their GPS positions to the Pacific. The reason I'm only talking about 360° photos is that, so far, Google allows them to be uploaded to exact GPS locations using metadata. Meanwhile, regular photos must be assigned to an existing location.

2026-06-04: PIGMENTED LESIONS

I tried to carry out this project, but due to the time it required, I didn't finish it. So far, I've only documented hands, cropped out the freckles (transparent background), preserved their scale, and created a program to arrange them in a grid. However, here is the text that was intended to explain the concept:

"In 2026, I documented every visible skin tumor or vascular anomaly on the surface of my body. The scale was preserved for each object. Subsequently, the individual lesions were digitally cut out and arranged in a regular grid."

2026-06-21: SELF-MODIFYING INTELLIGENT PROGRAM

I tried to create a program that uses the OpenAI API and their LLMs. The program's task is to modify itself and then run again. And I was curious to see where that would lead.

Unfortunately, the model often rejected the task because it considered it dangerous. Or it would complete it, but its successor would not. The attractor was simply always rejection on safety grounds. It never even made it to the fourth iteration.

Source code: concepts-2026-06-21-self-modifying-intelligent-program.py

2026-07-30: A SYSTEM WITH UNIQUE PARTICLES

Our physical system is boring in the sense that elementary particles appear to be identical to one another. An electron is just an electron; a photon is just a photon.

But I'd like to create a simulation of a system that has many elementary particles, yet no two of them are interchangeable. Ultimately, I arrived at a variant in which the particles themselves have no properties or identity. They are defined solely by their interactions with one another, which—from the perspective of an observer inside the system—is practically equivalent.

I enjoy imagining the implications of this idea. To put it a bit dramatically, living in such a system would make it quite challenging to make predictions. Also, entities living in such a system might have to be careful not to lose or have their own particles stolen.

I tried to simulate it and, technically, I accomplished the task. However, the result wasn't all that interesting. In my opinion, this is also because observing any interesting emergent properties requires greater computational power (more particles, more simulation time, perhaps more simulation dimensions) and a

deeper analysis of the output.

Update from August 22, 2026: While exploring the generated worlds, I eventually came across remarkable self-organizing structures. They are round to oval and look a bit like lipid capsules. They have clearly defined exteriors and interiors, with the barrier—or “membrane”—forming their exterior being very stable, while their interior is more fluid. I’ve set this seed as the default value in the demo below.

Note: The evolution of the system—and thus the size of these structures—depends on the display resolution. The animation speed affects their stability, likely due to numerical inaccuracies at larger time steps. Even if the structures break apart—for example, after increasing the animation speed—the system will eventually reorganize itself and create new ones.

This isn’t something I set out to create. I simply built a system with unique particles and interactions, and this emerged as an emergent phenomenon. Awesome—suddenly I have a “lipid” simulator.

Interactive demo: concepts-2026-07-30-system-with-unique-particles.html

2026-08-14: TRASH

What if I took a photo of absolutely every piece of trash I throw in the trash can? I could photograph it with a scale, then crop the trash out of the background and arrange it in a regular grid according to the appropriate size ratios.

2026-08-22: 天天中彩票买

When I consulted ChatGPT (v5.6 Sol) on the simplest way to describe the experiment “OPTICAL RHYTHM OF COMPUTER WORK” (see above), the chatbot automatically named it “ 天天中彩票买 Program Description.” Yet the chat was created entirely from scratch just to describe this experiment. The actual content of the program I sent her was completely normal.

So I decided to confront her about it and wrote this:

“Why did you name this chat ‘ 天天中彩票买 Program Description’?”

Her reply was:

“I have no idea. 😅 The character ‘q’ is the Armenian letter ‘za,’ so ‘Program Description q’ doesn’t make any sense at all in Czech. Chat names are automatically generated from the beginning of the conversation, and here the title generator apparently decided to throw in a random character from the Armenian alphabet. I don’t see any reason for it in the conversation itself. So no, it’s not some secret code for the program. It’s just ‘Program Description’ plus a typographical glitch.”

After a few more interactions, she realized that no, it wasn’t Armenian—it was Chinese. Still, it’s clear she was very confused at first. I think the string “ 天天中彩票买 ” works a bit like the infamous “ SolidGoldMagikarp ” token. I’m not claiming it works exactly the same way, nor do I know if the tokenizer represents the string “ 天天中彩票买 ” as a single token. However, when

working with it, the model behaves somewhat like ChatGPT 3 does with the token “ SolidGoldMagikarp .” It’s also possible that this is somehow related to its memory, since that extends beyond this chat.

The entire chat exported as a PDF: concepts-2026-08-22-chatgpt-full-chat.pdf

2026-08-26: THE BUTTON OF MY DREAMS

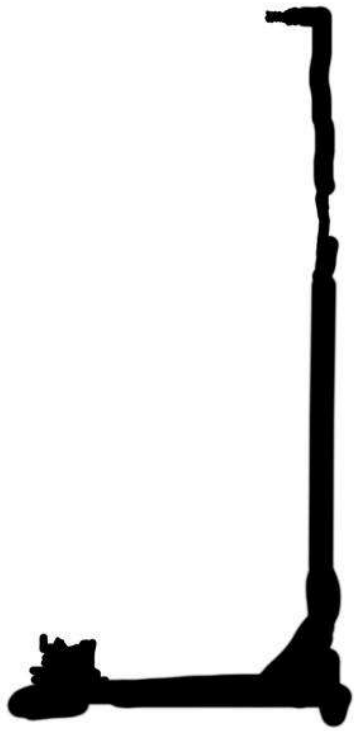
I’m regularly annoyed by Windows dialog boxes that offer things like backing up via OneDrive, updates, and the like. They always offer a choice between “Let’s get started” and “Remind me later.” That’s pretty frustrating when I’m not interested in either of those options.

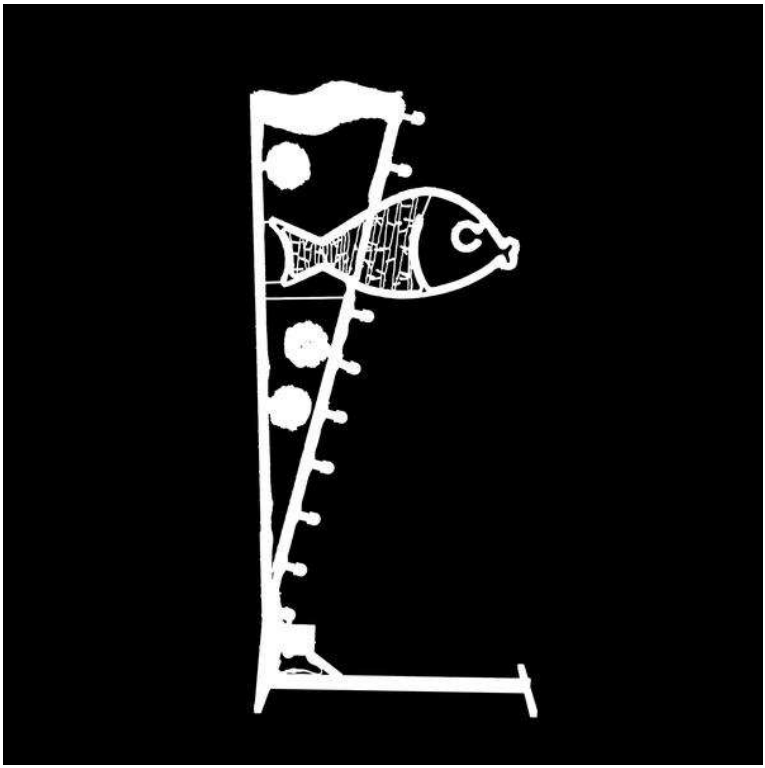
So I had the idea to create an image (a photomontage) in which I’d add a third option—the button of my dreams, which, unfortunately, is currently missing from the system. It would be a button that says “Go fuck yourself.” I bet I’m not the only person this image would really resonate with.

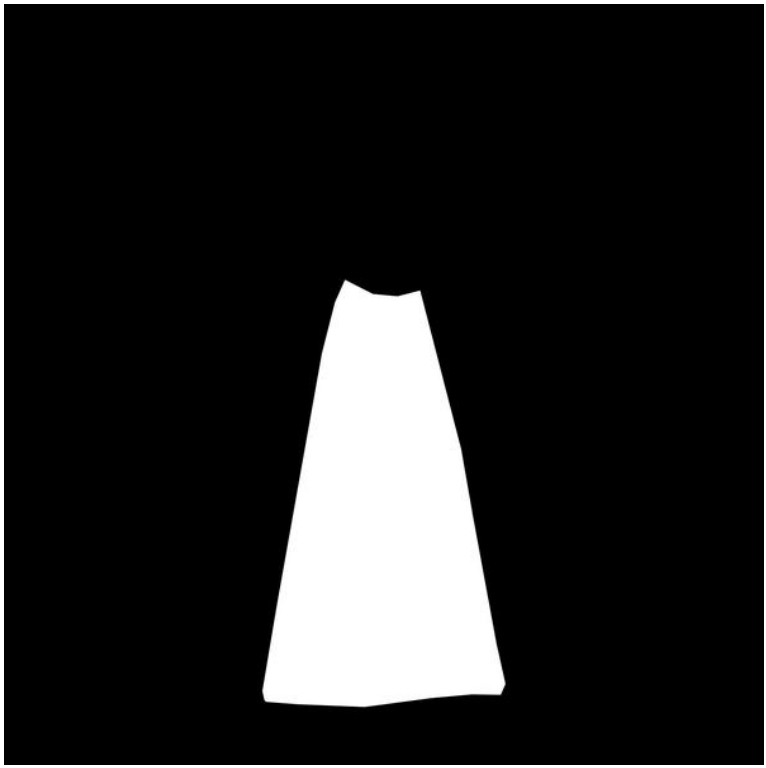
Masks

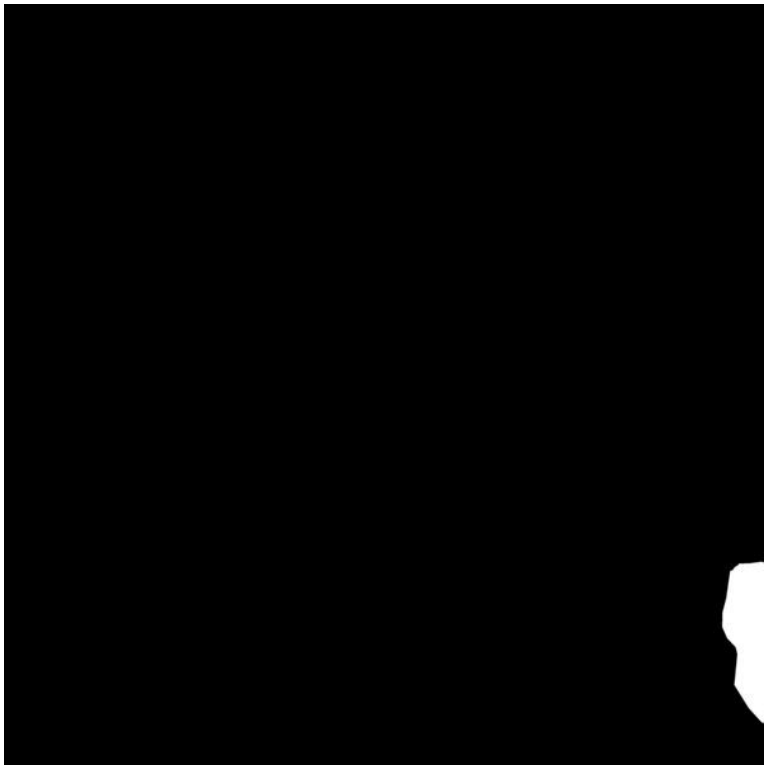
August 2026

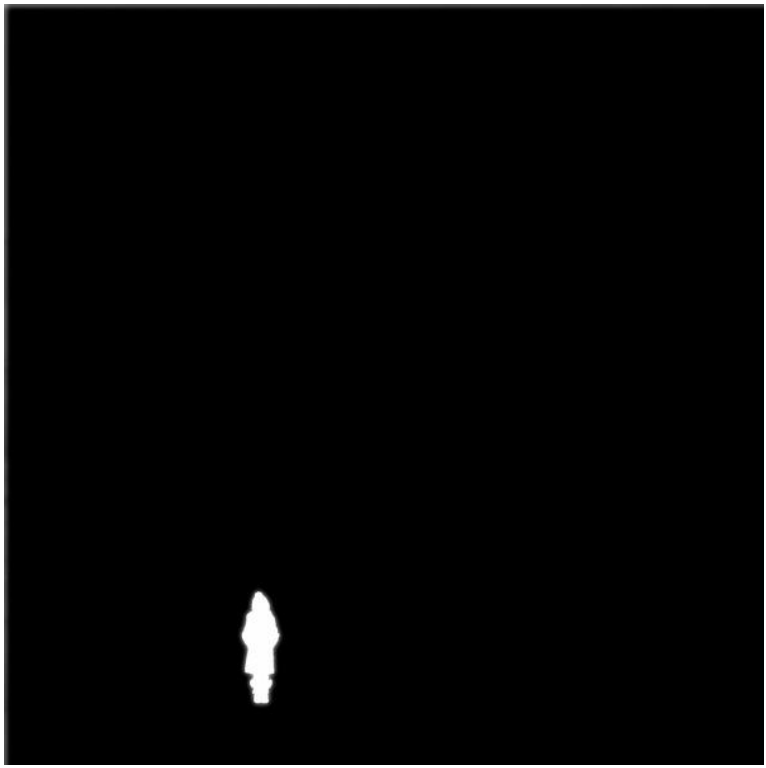
The images below are masks created in Adobe Photoshop during my work on various projects. Each mask was saved as a separate image at the time of its creation. This gallery is not a curated selection. If a mask was created during my work, it is included here. The images are arranged chronologically from oldest to newest.

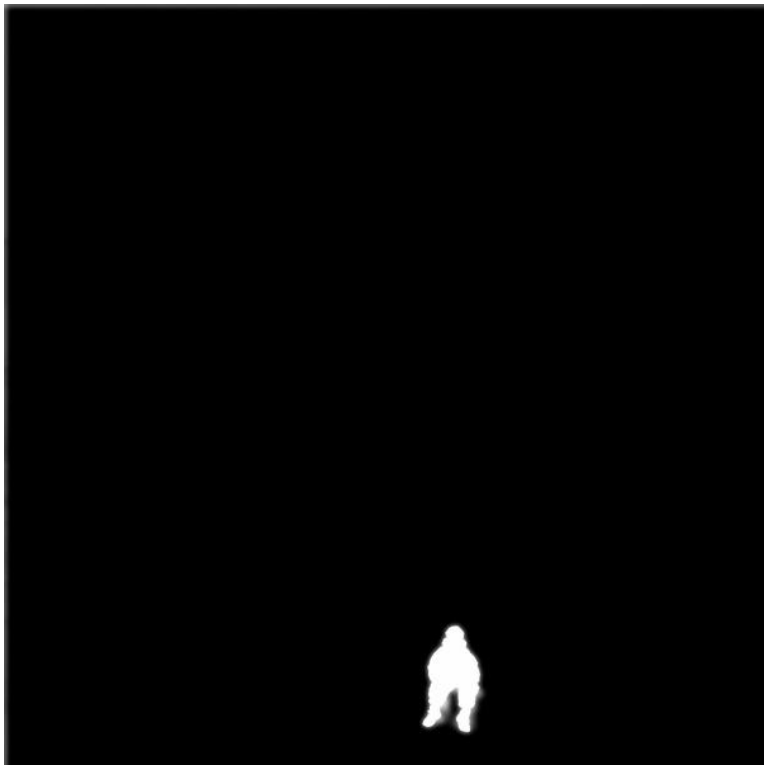


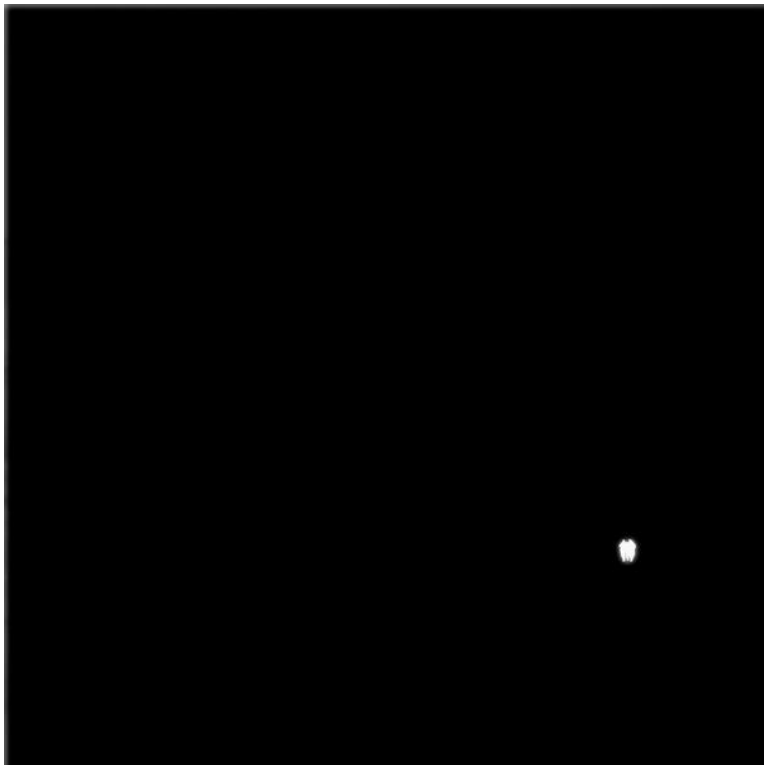


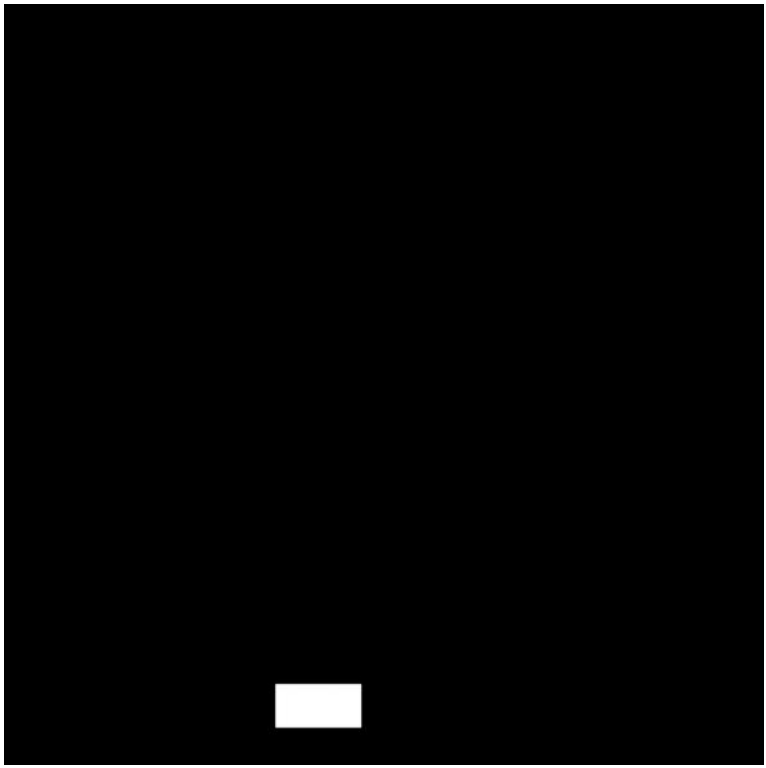


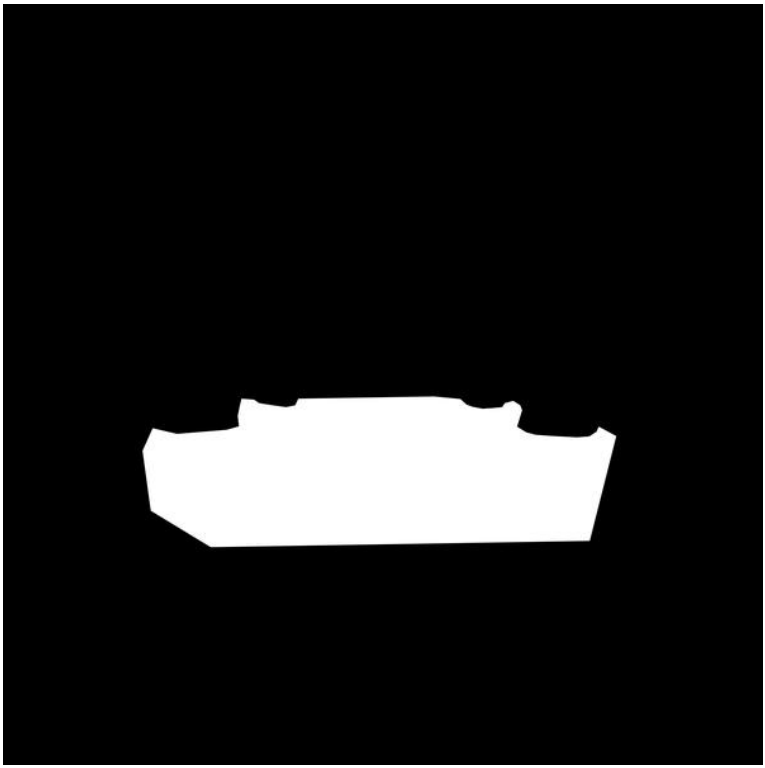


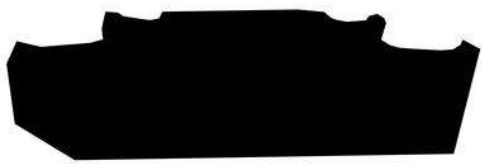


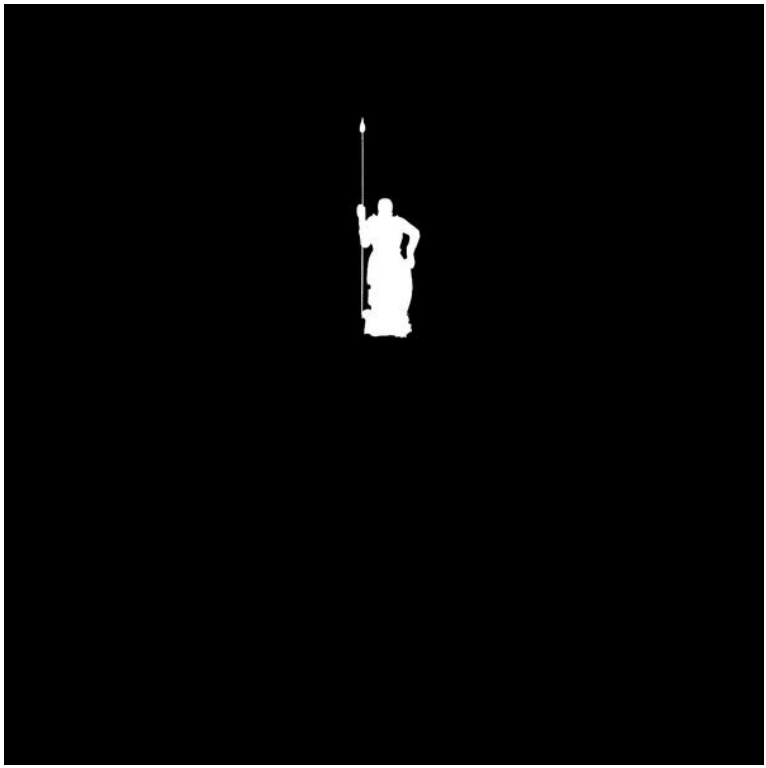


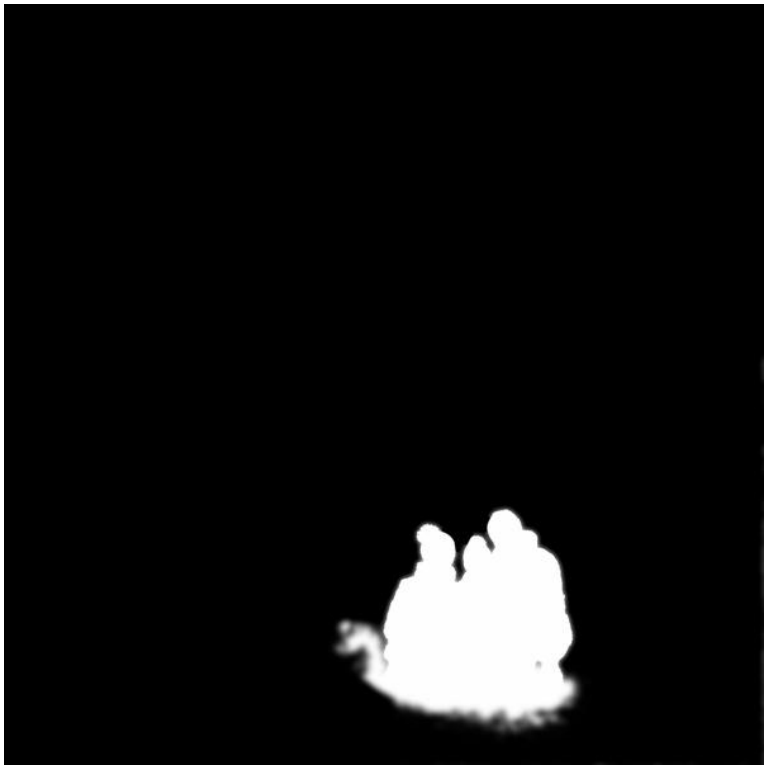






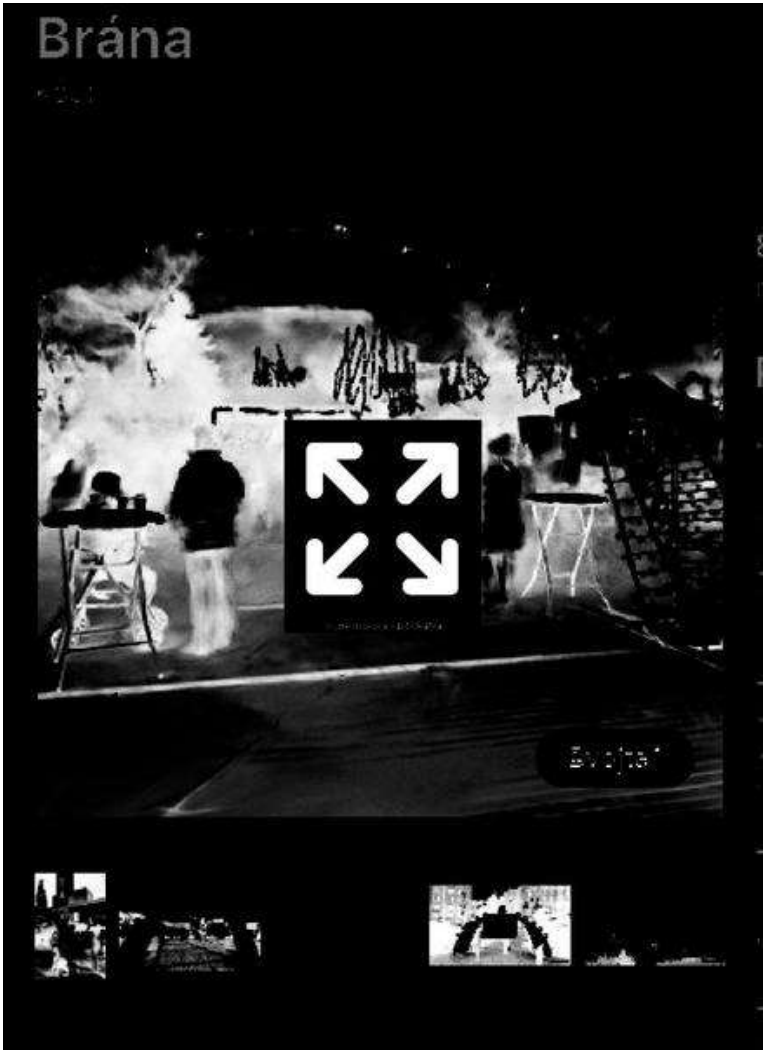


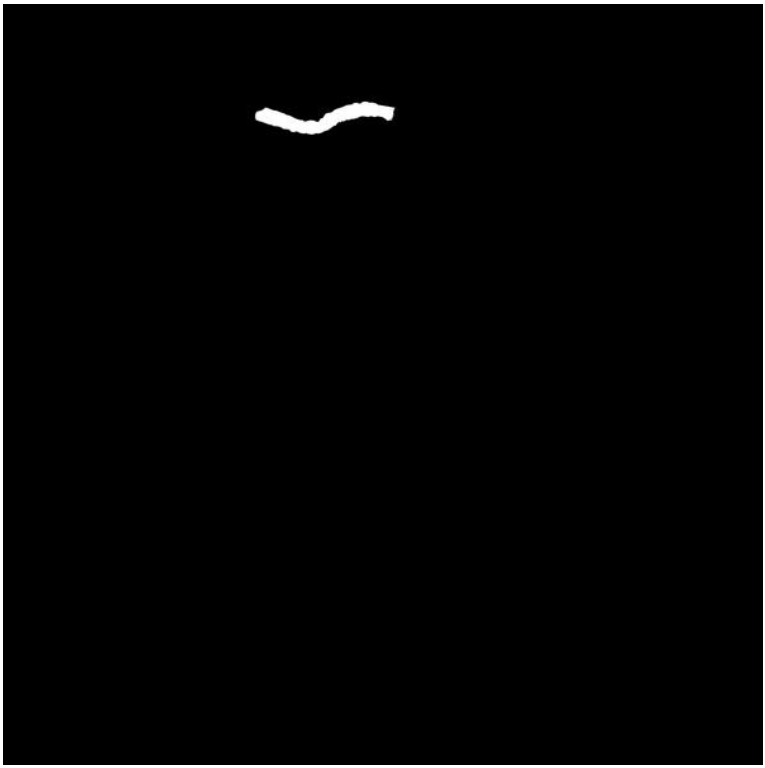


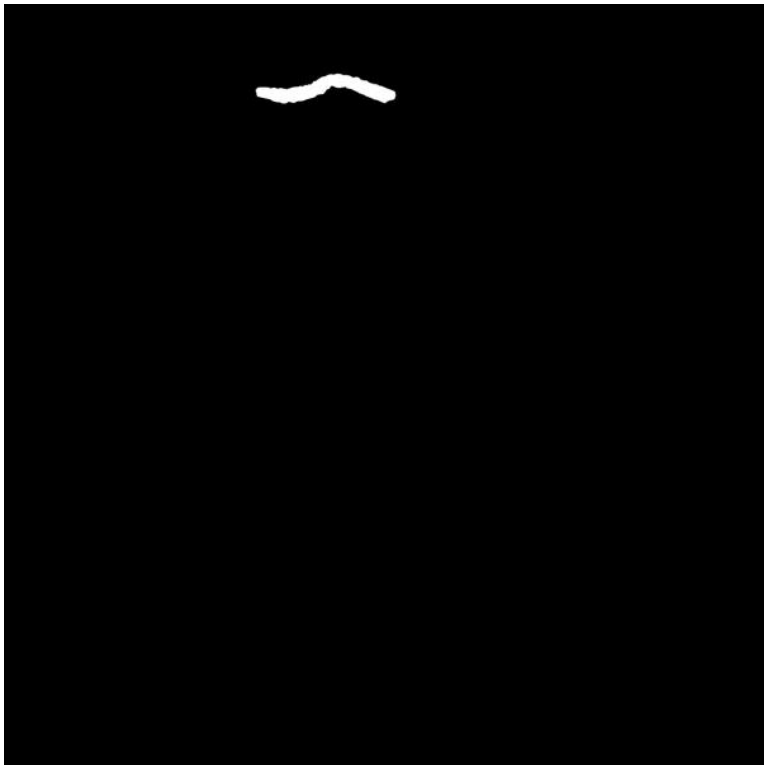


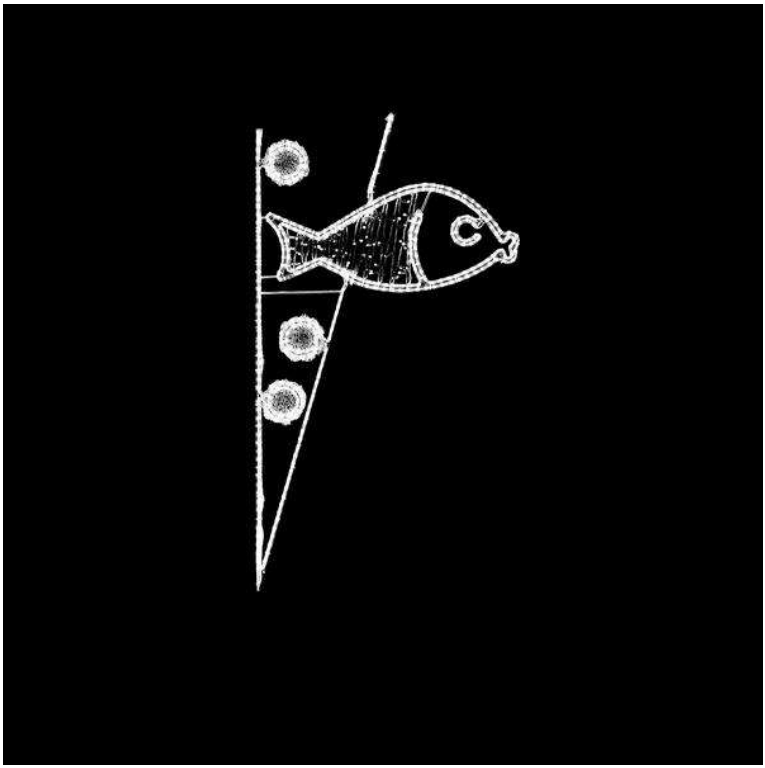
Brána

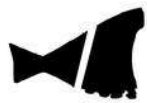
Brána

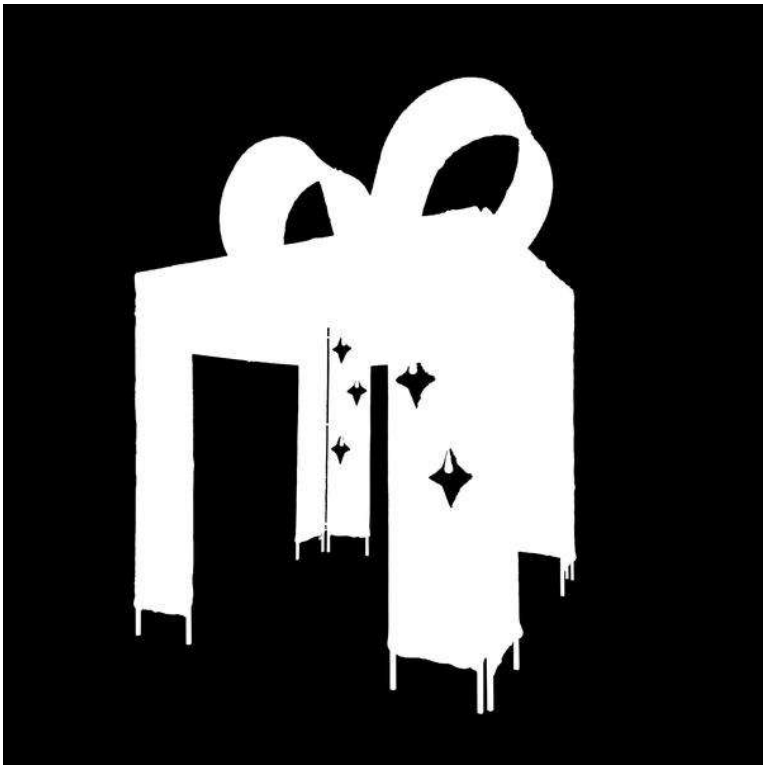


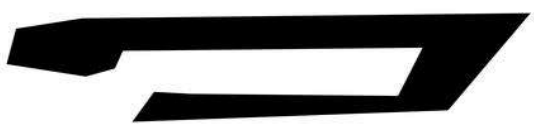


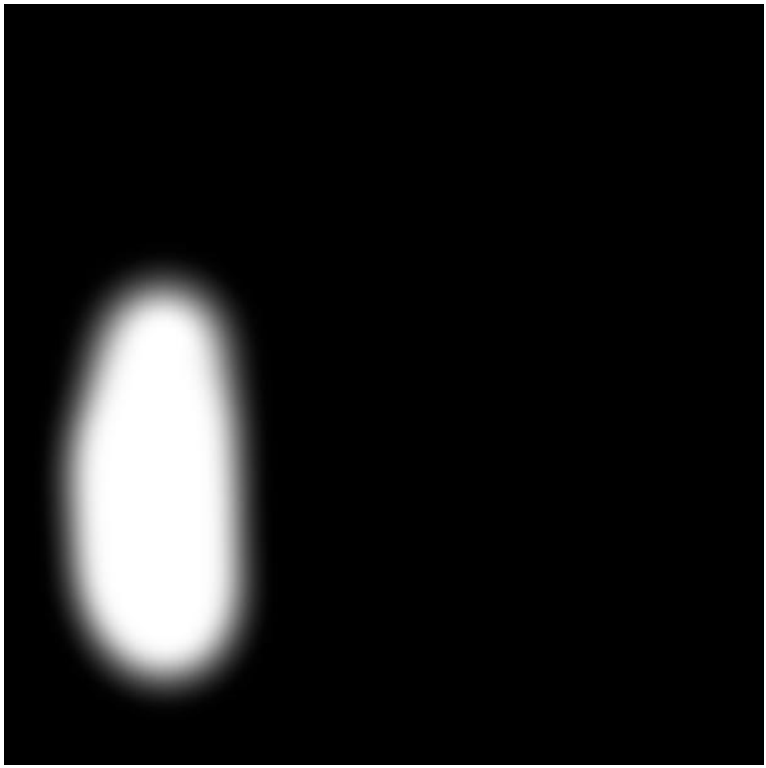


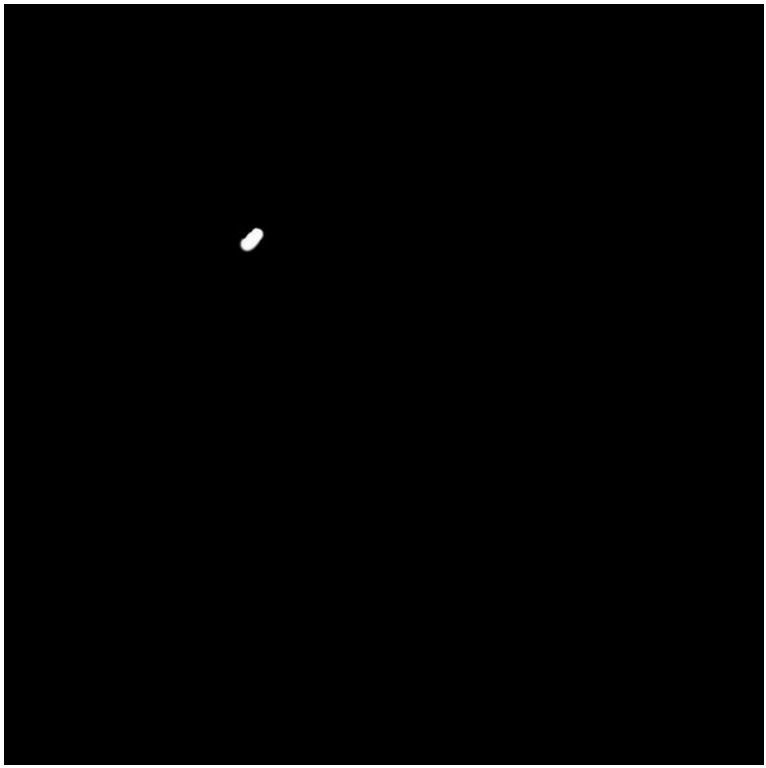


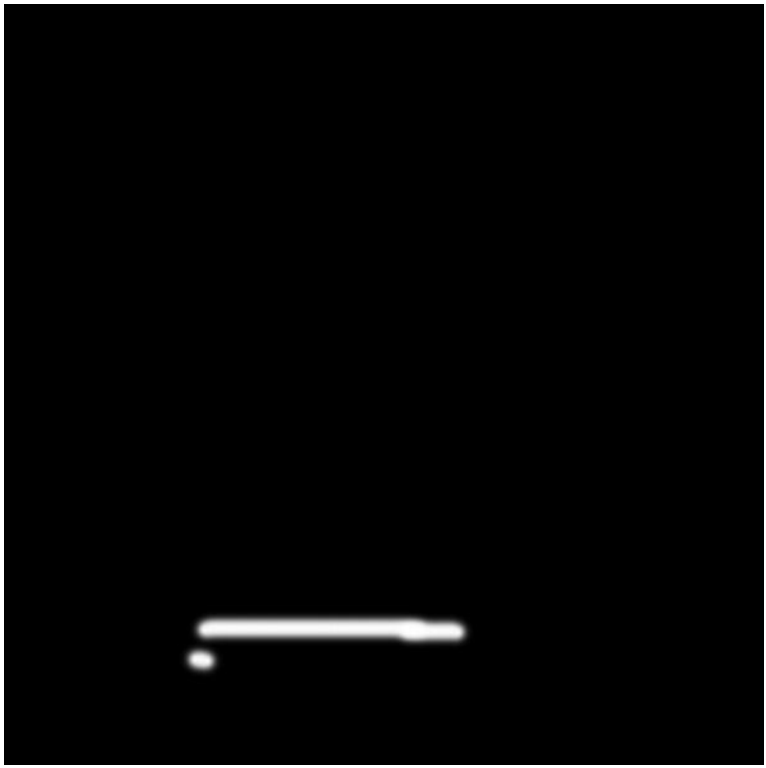


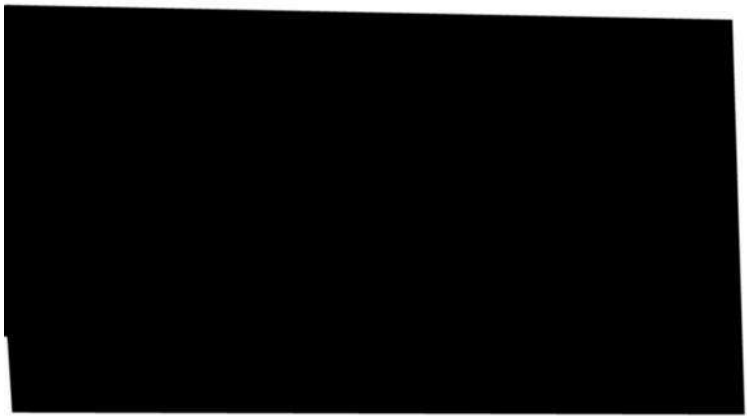


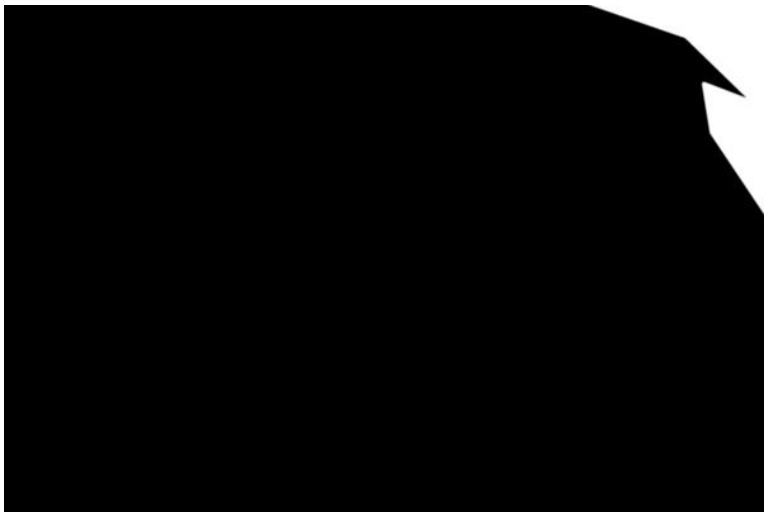


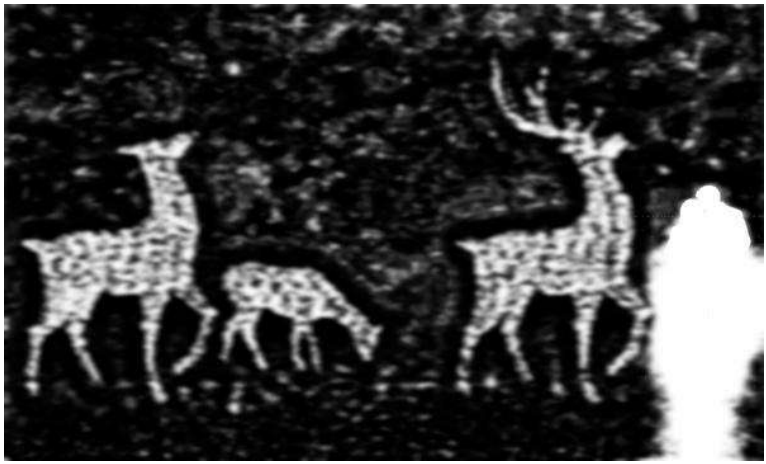












Freeloaders

May 2026

For the past year, several times a day, I've been pouring used loose-leaf tea and the remaining water onto a spot on the lawn in Plzeň-Božkov because I don't want to clog the drain.

Snails have started to gather in this spot, eating the tea leaves.

Sometimes there are as many as a dozen of them there, other times none at all.

I share their tastes.

Pilsen, 2026-05-01

May 2026

Thermal camera images: an attempt to view the scene as input for observation and targeting systems.

Metaweb Article

April 2026

MANIFESTO

This website is a static project focused on the long-term preservation of content.

All content is stored in files, without relying on databases or external systems. The resulting website is generated as a static output that can be easily copied, archived, and rebuilt.

The project is distributed across multiple independent systems: repositories, archiving services, and static snapshots. This reduces the risk of data loss.

The goal is to ensure that the content can be reconstructed even if some parts of the original infrastructure cease to exist.

ENTRY POINTS

These links represent the same project stored in different systems and in various forms.

They include the canonical source repository, its copies, and complete static snapshots. Together, they form a redundant structure designed to preserve the project and enable its

reconstruction even if some parts become unavailable.

The project also exists as a Python CLI package distributed via GitHub and PyPI, including embedded fallback snapshots of selected text artifacts.

The digital archiving of this website thus utilizes, in addition to its own domain, the services of GitHub, GitLab, Codeberg, Neocities, Cloudflare, Netlify, Vercel, Firebase, ChatGPT Sites, Arweave, Pollux.casa (Gemini), envs.net (Gemini + Gopher), Software Heritage, Internet Archive, Webarchiv, Zenodo, Figshare, Permanent.org, Proton.me, PyPI, Perma.cc, archive.today, Ghost Archive, Arquivo.pt, Megalodon / Web Gyotaku, and paste.rs.

```
MAIN SITE (primary live version):
  https://vojtamaur.cz/

ALTERNATIVE DEPLOYMENTS:
  GitHub Pages
  https://vojtamaur.github.io/vojtamaur-web/
  Cloudflare Pages
  https://vojtamaur-web.pages.dev/
  Netlify
  https://vojtamaur.netlify.app/
  Vercel
  https://vojtamaur-web.vercel.app/
  https://vojtamaur-web-git-main-vojta-
maur.vercel.app/
  https://vojtamaur-7o0qbm9r5-vojta-
```

maur.vercel.app/
  Firebase Hosting
  https://vojtamaur-977c1.web.app/
  https://vojtamaur-977c1.firebaseapp.com/
  GitLab Pages
  https://vojtamaur-web-a22b59.gitlab.io/
  Codeberg Pages
  https://vojta_maur.codeberg.page/
  Neocities
  https://vojtamaur.neocities.org/
  ChatGPT Sites
  https://vojtamaur.vojtam.chatgpt.site/
  ArDrive / Arweave
  https://
db6beycsnxhli2vxsahgn3ajpsi6qv5alttkr4d3sfwrj7uurqfq.
GHwSYFJtzrRqt5AOZuwJfJHoV6Bc5qjwe5FtFP6UjAs/
  https://arweave.net/
GHwSYFJtzrRqt5AOZuwJfJHoV6Bc5qjwe5FtFP6UjAs/
  Pollux.casa (Gemini capsule + HTTPS
gateway)
  https://vojta.pollux.casa/
  gemini://vojta.pollux.casa/
  envs.net (HTTPS hosting + Gemini capsule +
Gopherhole)
  https://vojtamaur.envs.net/
  gemini://envs.net/~vojtamaur/
  gopher://envs.net/1/~vojtamaur

SOURCE REPOSITORY (canonical source):
  GitHub

https://github.com/VojtaMaur/vojtamaur-web

COPIES OF GITHUB REPOSITORY:

GitLab

https://gitlab.com/vojta.maur/vojtamaur-web

Codeberg

https://codeberg.org/vojta_maur/pages

Software Heritage (archival ingest of repository)

https://archive.softwareheritage.org/browse/origin/directory/?origin_url=https://github.com/VojtaMaur/vojtamaur-web

Internet archive (archival ingest of repository)

https://archive.org/details/vojtamaur-web-source-2026-05

https://archive.org/details/vojtamaur-web-complete-sourcebuildgit-2026-07

https://archive.org/details/vojtamaur-2026-08-git-mirror

Permanent.org(archival ingest of repository)

https://app.permanent.org/p/archive/0kx0-0000/0kx0-0005/2230361/record/0kx0-00r9

Proton.me

https://drive.proton.me/urls/RF0E5CGBSM#uMPlGQv19eDX

STATIC SNAPSHOTS (built output of the repository):
  GitHub Releases
  https://github.com/VojtaMaur/vojtamaur-web/releases/
  Zenodo
  https://doi.org/10.5281/zenodo.19691321
  Figshare
  https://doi.org/10.6084/m9.figshare.33077810
  Internet Archive
  https://archive.org/details/vojtamaur-2026-04
  https://archive.org/details/vojtamaur-2026-05
  Permanent.org
  https://app.permanent.org/p/archive/0kx0-0000/0kx0-0005/2230361/record/0kx0-00r7
  https://app.permanent.org/p/archive/0kx0-0000/0kx0-0005/2230361/record/0kx0-00r8
  Proton.me
  https://drive.proton.me/urls/9MK543P588#Lz2xoUSJ9upD
  https://drive.proton.me/urls/2HPKXJABCG#CnTLdNh55HA9

PYTHON CLI PACKAGE (distribution + embedded fallback snapshots):

```
  PyPI
  https://pypi.org/project/vojtamaur/
  GitHub
  https://github.com/VojtaMaur/vojtamaur-
python
  Software Heritage (archival ingest of
GitHub repository)
  https://archive.softwareheritage.org/
browse/origin/directory/?origin_url=https://
github.com/VojtaMaur/vojtamaur-python
```

View the complete archive map (ARCHIVE.txt)

TECHNICAL DOCUMENTATION

Technical documentation required to reconstruct this website.

View the complete technical documentation

SOURCE PACKAGE FOR RECONSTRUCTION

The website's source package is generated automatically during the build.

The package contains the source code for this website, an asset manifest, SHA-256 checksums, and a Python script with no external dependencies. It does not include large assets from

`public/images/`, `public/files/`, and `public/demos/` to avoid unnecessarily doubling the size of the live website. After extraction, the script first attempts to copy the assets locally from the finished build and only then downloads them from public mirrors.

Thus, the source code generates the build, and the build generates the source code.

The source package is recursively reconstructible: after downloading the assets and installing the dependencies, you can use it to regenerate both the website and a new source package.

Download the reconstructible source package for the website (vojtamaur-web-source.zip)

BUILD INTEGRITY AND IDENTITY

SHA-256 verifies that the build files have not been altered. Additionally, the OpenPGP signature allows you to verify that the checksum manifest was signed by the author of this website.

SHA256SUMS.txt — a list of SHA-256 checksums for the build files SHA256SUMS.txt.asc — a separate OpenPGP signature for the file`SHA256SUMS.txt`
BUILD_SHA256.txt — SHA-256 checksum of the file`SHA256SUMS.txt`
integrity.json — machine-readable descriptive information about the build's
integrity SIGNING_STATUS.txt — descriptive status of the signing for a specific build

vojta-maur-openpgp.asc — public OpenPGP key for verifying the signature

Fingerprint of the master OpenPGP key:
`57E9 D455 FB10 A228 F66E 18AE C5F5 B390 5220 BE59`

Not every deployment needs to be signed. A signed build must contain the file `SHA256SUMS.txt.asc`, and its signature must verify successfully. The mere presence of a statement in `integrity.json` or `SIGNING_STATUS.txt` is not proof of a valid signature; these files are for informational purposes only.

TEXT EXPORT OF ALL ARTICLES

A plain-text export of all articles generated during the website build. It contains the text content of posts in a linear format, independent of CSS, JavaScript, or any specific web technology. It serves as a minimal archival layer for indexing, offline reading, full-text search, and long-term content reconstruction, even in the event of partial breakdown of the original website structure. The text export is also suitable for large language models.

View the text export of all articles (ALL_POSTS.txt)

PHYSICAL ARCHIVAL LAYER

Selected portions of the website's content also exist on separate physical archival media. These include printed analog copies as

well as portable data storage media. Individual media types differ in terms of how they are read, technical dependencies, management, availability, and expected lifespan. Some are directly readable without electronic devices, while others require compatible hardware, software, or assistance from an archival institution.

Each line in the following register refers to a single specific physical copy.

ID	Title	Preview	Date Created	medium and format	Contents	Language	Author	Last known location	Access	Note
001	Volná tvorba archiv svazek 1	image	June 9, 2026	paper; A4; color single-sided print stored in Euro sleeves	Article in the "Personal Work" section	Czech / English	author	Author's private archive, Pilsen, Czech Republic	upon request	Contains metadata. Some source codes and PDFs are not printed in full.
002	ALL_POSTS.txt	image	June 10, 2026	paper; A4; single-sided printing of plain-text	Complete plain-text export of all articles	Czech / English	author	Author's private archive, Plzeň, Czech Republic	upon request	Includes metadata and the SHA-256 checksum of the

				export					original digital file.
003	ALL_POSTS_Venice Edition	images.txt	June 12, 2026	paper A4; double-sided print; plain-text export, ring-bound	plain-text export of the English section "Personal Work"	English	Biennale staff member	Sereen Melancholy exhibition, Palazzo delle Prigioni, Castello 4209, Venice, Italy	unknown	The copy was found by a Biennale staff member (according to his own account), who subsequently contacted the author. The copy's subsequent fate is unknown.
004	ALL_POSTS_Edice volné distribuce	images.txt	July 1, 2026	paper A4; double-sided	plain-text export of the	Czech	Filip Drábek	Karlovy Vary, Czech Republic	Unknown	A copy donated to a

			1		printout of a plain-text export bound with cable ties	Czech sections “Personal Work” and “Exhibitions”			friend (author of the poem “Jezápek”).
005	ALL_PROGS.txt	Edice volné distribuce 2		POST-July 10, 2026	paper; A4; double sided printout of plain-text export bound with cable ties	Complete plain-text export of all articles	Czech / English	unknown	Book drop “Černice - Štefánikova 116 (next to the grocery store)”, GPS: 49.696326, 13.416469, Plzeň, Czech Republic	unknown	The subsequent fate of this copy is unknown.
006	vojtamaurez	offline 1		July 11, 2026	Verbatim USB flash drive; 16	USB build complete PDF export,	Czech / English	unknown	Geocache GCNJ2Z “Krásná vyhlídka,” Háje	unknown	The fate of this copy

				GB	and complete plain-text export			Hill near Koterov, Plzeň, Czech Republic	is unknown.
007	vojta manager offline 2		July 12, 2026	A-Data Speed Drive USB flash drive; 64 MB	Complete PDF export and complete plain-text export	Czech / English	unknown	Geocache GCBHAG3 “Sign of the Flower Circle – Daffodil,” above Božkov, Plzeň, Czech Republic	Contains metadata and an SHA-256 checksum. The current status of this cache is unknown.
008	ALL_POSTS.txt Edice volné distribuce 3		July 15, 2026	paper; A4; double-sided plain-text export in a ring binder	Complete plain-text export of all articles (compact version)	Czech	Jáchym Štěpka	Strakonice, Czech Republic	Copy donated to a friend.

009	ALL_POSTS.txt	image/plain	August 6, 2026	paper; A4; double-sided plain-text export in ring binder	Complete plain-text export of all articles (compact version)	Czech	Author	Authors private archive, Halže, Czech Republic	Upon request	Contains metadata.
010	Výstavy a Cestování archiv	image/jpeg	August 10, 2026	paper; A4; color; double-sided print stored in Euro sleeves	Articles from the Exhibitions and Travel sections	Czech	Author	Authors private archive, Pilsen, Czech Republic	Upon request	Contains metadata. Some PDFs are not printed in their entirety.
011	vojtamaur-offline-3	image/zip	August 12, 2026	Verbatim Gold Archival DVD-R; 4.7 GB; 8×	Source code, web build, complete PDF export, vojtamaur-python package,	Czech / English	author	author's private archive, Plzeň, Czech Republic	Private	Includes readme.txt and a PyPI API token.

						video archive					
012	vojtamaur offline 4	image	August 13, 2026	Verbatim Gold Archival DVD-R; 4.7 GB; 8×	source code, / USB build, complete PDF export, vojtamaur-python package, video archive	Czech English	Author	Author's basement, Pilsen, Czech Republic	upon request	Includes readme.txt file and two physical, double-sided A4 printouts of the export (exported using export-site-pdf-ultra.py).
013	ALL_PDFs.txt Memory of Mankind Edition	image	August 16, 2026	ceramics, 3 archive tables from "Memory of Mankind", condensed	plain-text export of the English section "Personal Work"	English	Memory of Mankind	Austria	limited	Special thanks go to Martin Kunze, founder of the Memory of

				single-sided typesetting of the plain-text export					Mankind project, for his cooperation and assistance in carrying out this archiving effort.
014	Metaweb článek	image	August 25, 2026	paper; A4; black-and-white, double-sided PDF export of a Metaweb Article bound with zip ties	Complete PDF export of the Metaweb Article, including image attachments, Ultra PDF export, ARCHIVE.txt, technical documentation, and build	Czech / English	author	Author's private archive, Plzeň, Czech Republic	upon request	Contains metadata and SHA-256 checksums for the included files. Exported using export-metaweb-pdf.py.

015	vojtamaur-offline-5	image/z	August 25, 2026	Verbatim Gold Archival DVD-R; 4.7 GB; 8×	source code, / USB build, complete PDF export, vojtamaur-python package, video archive, identity and integrity files	Czech English	Author	Author's private archive, Plzeň, Czech Republic	Upon request	Includes a readme.txt file and two physical, double-sided A4 sheets with the export (exported using export-site-pdf-ultra.py).

Clipboard Dump

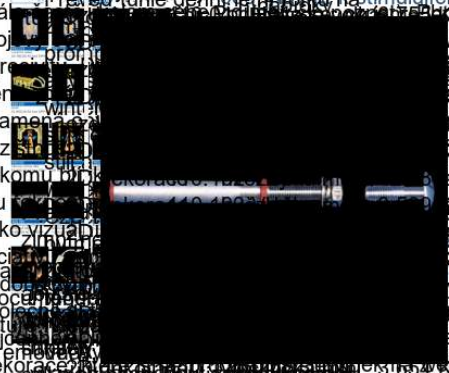
April 2026

This project works with the contents of the Windows system clipboard .
Any text, image, or file that is copied is immediately pasted into a single limited space.
The content is neither edited nor sorted. Individual elements are randomly placed within the format and overlap one another.
The canvas gradually fills up with no possibility of going back or editing.

Each of the images below is the output from a single day and captures the course of my work at the computer.

March 25, 2026

March 26, 2026



March 27, 2026

608,3

[FILE] E:\Rozárium (podklad) 000.mp4

[FILE] C:\Users\Vojta\Desktop\Teplice\
Rozárium.prproj

[FILE] E:\Rozárium.mp4

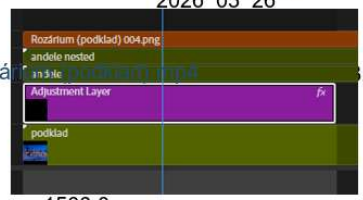
www.mozilla.org

C:\Users\Vojta\Desktop\Teplice

[FILE] E:\Rozárium (podklad).mp4

2026_03_26

2048



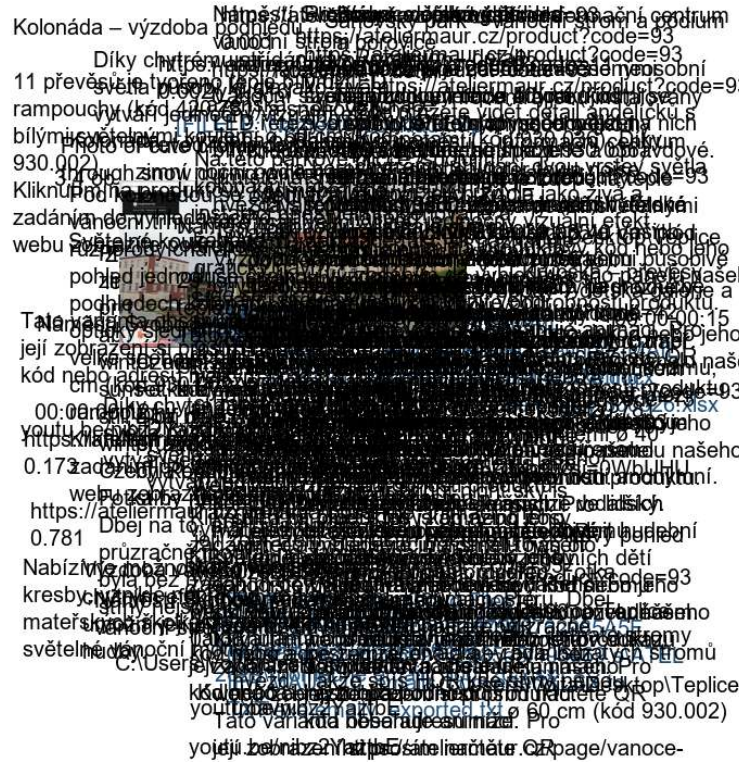
[FILE] E:\Rozá

,0

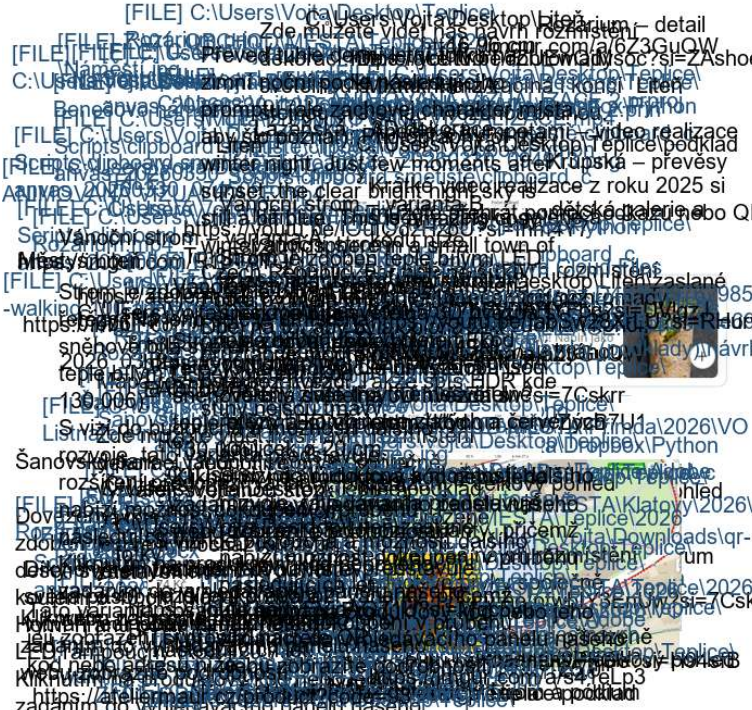
1024,0

1566,0

March 30, 2026

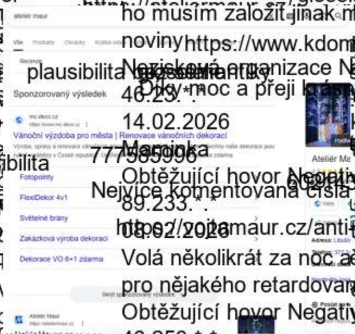


March 31, 2026



April 1, 2026

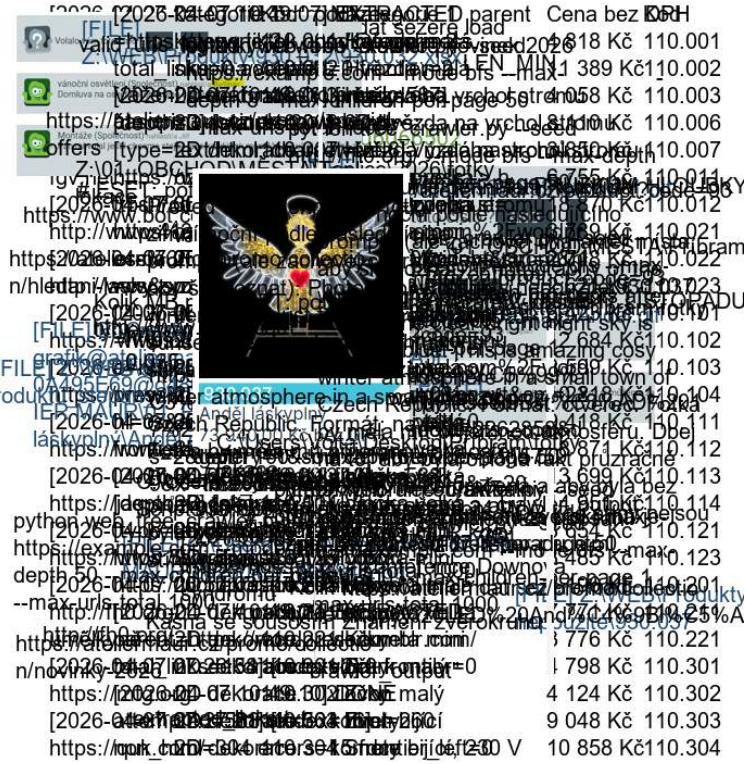
Tak jsem na to koukal a vypadá to
zatím velmi dobře, co se týče logiky
překladů tak je to podle mě přesně ta
cesta, kterou js
EDITACE PŘE
Jinak ano, ta ec
super, myslím s
takový ten prob
překlad delší ne
nevejde se do „
si tohohle probl
„Uchycení deko
decorations“, ko
toho napsat jen
Předpokládám,
bude více.
SMLUVNÍ PODMÍNKY DEEPL:
Co jsem tak zjistil
smluvních podmínkách
ukazujeme kompozici
vytvořený v rámci jejich API
manuální modifikace
zobrazovat jejich logo nebo brand
name/doména DeepL. To
platit i pro ten placený tier
podle mě nabízí různá řešení.
• Dát to fakt někam do footeru
všech stránek, co nejsou v češtině.



Glosolálie
fuzzy finder
2026
www.at
(500
(plausibilita
update
http://
plausibilita glosolálie sémantiky
Nezisková organizace Negativní
46.23.*.*
14.02.2026
777585996
Obtěžující hovor Negativní
Nejvíce komentovaná čísla
89.233.*.*
https://voltamaur.cz/anti-lazy
08.02.2026
Volá několikrát za noc a chce hlídání
pro nějakého retardovaného zmocněnce
Obtěžující hovor Negativních případů
46.253.*.*
aktuálnost překladu (vstupní česká
data se mohou měnit), automatizované
https://www.decoled.cz/search/komet
Nejvíce hledaná čísla
Attachment of decorations
DZX1983WS1
site.cz?lang=de
https://www.muzutozvednout.cz/telefonni-cislo/606066502
glosolálie level 2
Glosolálie
Attachment:
https://voltamaur.cz/pseudobaseň/
Díky moc a přeji krásný zbytek dne.
https://www.kdomivolal.cz/
glosolálie level 2.
Tak jak obraz se ti bude líbit nebo nelíbí,
\Desktop\2026
jazykovarianty sémantiky.

April 2, 2026

April 7, 2026



April 8, 2026

Kliknutím na produktový kód nebo jeho

Kašna se sousoším Znamení zvěrokruhu zadáním do vyhledávacího panelu našeho

[FILE] C:\Users\Vojta\Dropbox\ATELIÉR MAUR\IMG

varianta A

webu zobrazíte podrobnosti.

C:\Users\Vojta\Desktop\Příbram\fotky

0.78

https://ateliermaur.cz/product?code=13

mond-wow.ru/

lokace

Kašna je zdobena pěti světelnými

https://ateliermaur.cz/product?code=93

crt.sh

www.kopieyou.com

930.003)

pip install certstream

Kašna se sousoším Znamení zvěrokruh

python certstream_listener.py

a čtyřmi na ... světelnými

C:\Users\Vojta\Dropbox\Python Scripts\random_internet_exploration

sněhově bílými výplety

pip install --upgrade

Příbram

výpletem (kód 150.0

C:\Users\Vojta\Dropbox\Python Scripts\

[FILE] C:\Users\Vojta\Desktop\Příbram\Kašna.psd

Výzdoba je navržena pro bezpečné

random_internet_exploration

C:\Users\Vojta\Desktop\Příbram

napětí 24 V.

certstream_listener.py

Kliknutím na produktový kód nebo jeho

Listening to CertStream...

[FILE] E:\Creative Cloud Files

zadáním do vyhledávacího panelu našeho

wss://api.certstream

[redacted] 00 cm (kód

@ateliermaur.cz D4575097 62985A5F

webu zobrazíte podrobnosti.

Logging to

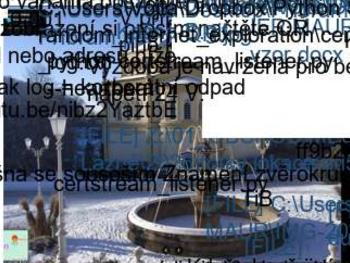
https://ateliermaur.cz/product?code=11

Tato varianta

5e69.e\ATEL

C:\Users\Vojta\Dropbox\Python Scripts\

Kašna B



její zobrazení si prosím načtěte QR

[FILE] MAUR\05_Návrhy (podklady)\návrh vzor.docx

random_internet_exploration\certstream

Kašna se sousoším Znamení zvěrokruh

kód nebo adresu níže

Výzdoba je navržena pro bezpečné

pbox\ATELIÉR

STA\Mariánské

00001.jpg

střížek2.JPG

jinak log-... odpad

napětí 24 V.

youtu.be/nibz2YaztbE

ff9b2

5GAo.jpeg

Kašna se sousoším Znamení zvěrokruhu

[timestamp] domain

certstream_listener.py

TiB

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[FILE] Z:\01_OBCHOD\MĚSTA\Příbram\2

MAUR\IMG-20260408-WA0002.jpg

duben\Kašna A.jpg

má linky ... @filence.com"

C:\Users\Vojta\Dropbox\Zápisy\0070_To nějak sedí (5-MeO-DMT).docx

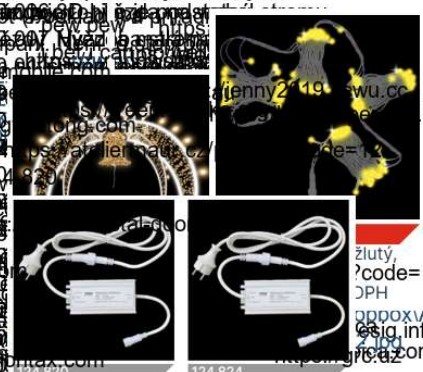
tebibyte

424.123

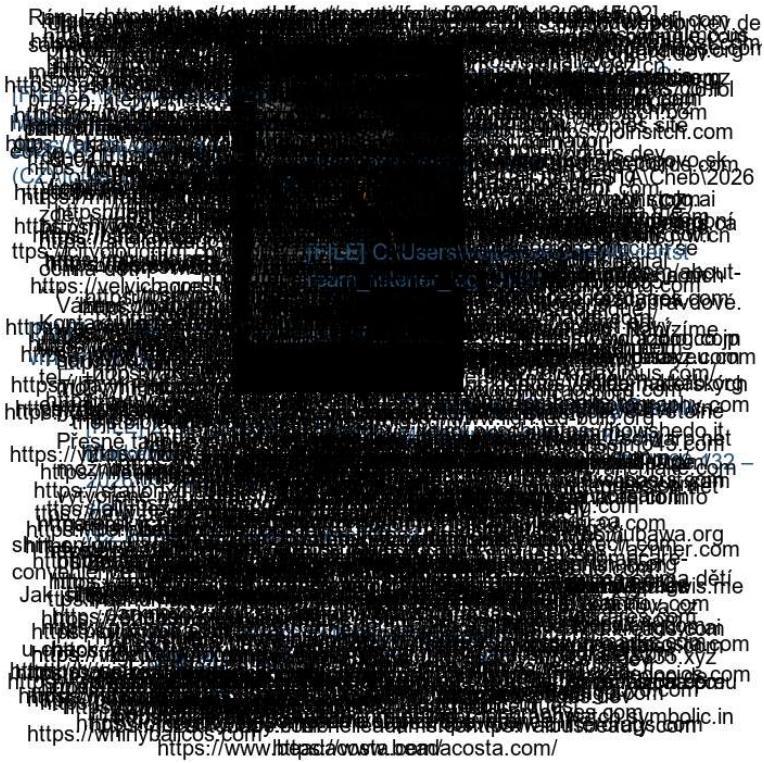
Když chceš jiný log file:

April 9, 2026

April 10, 2026

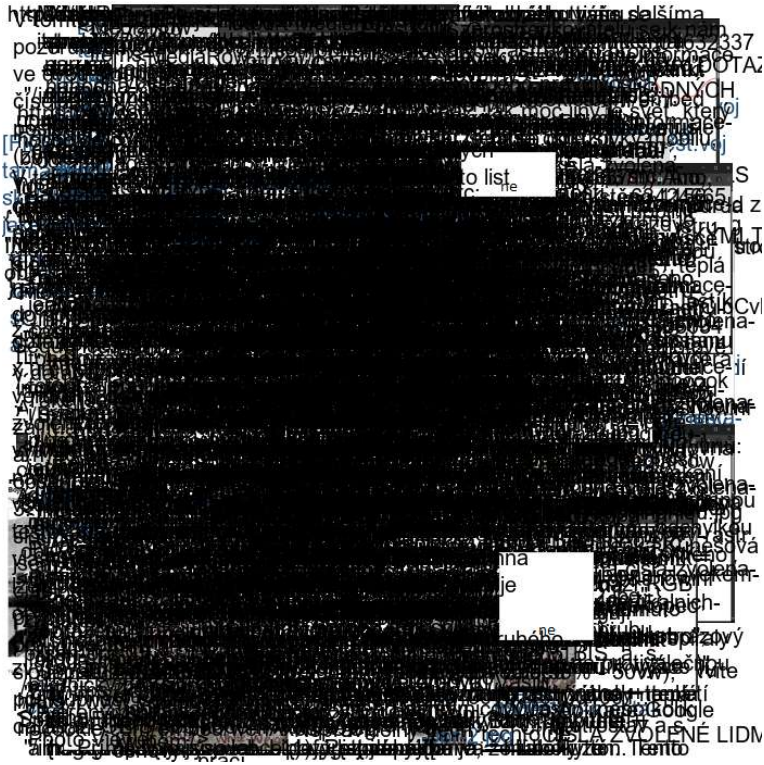


April 13, 2026

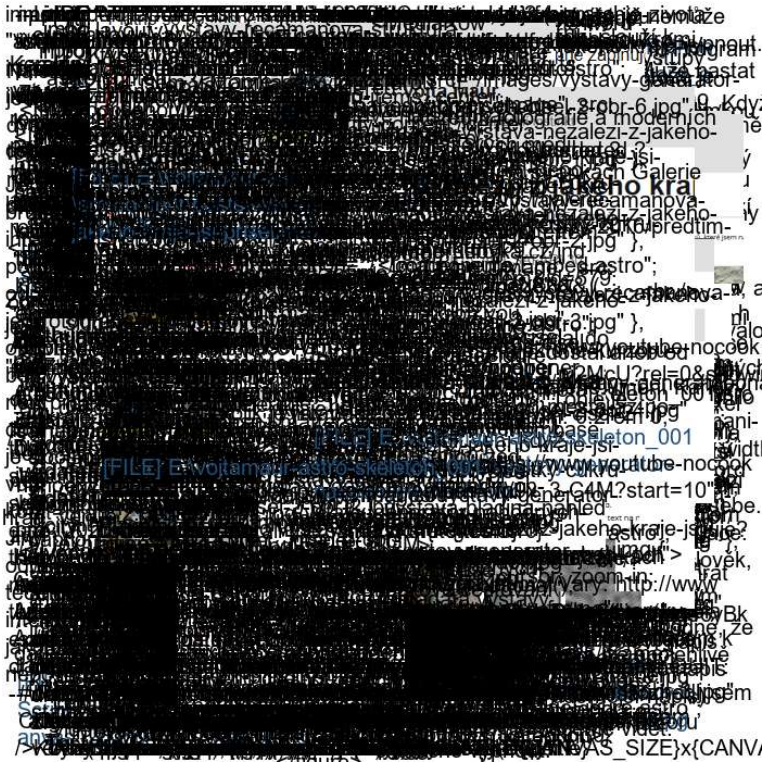


April 14, 2026

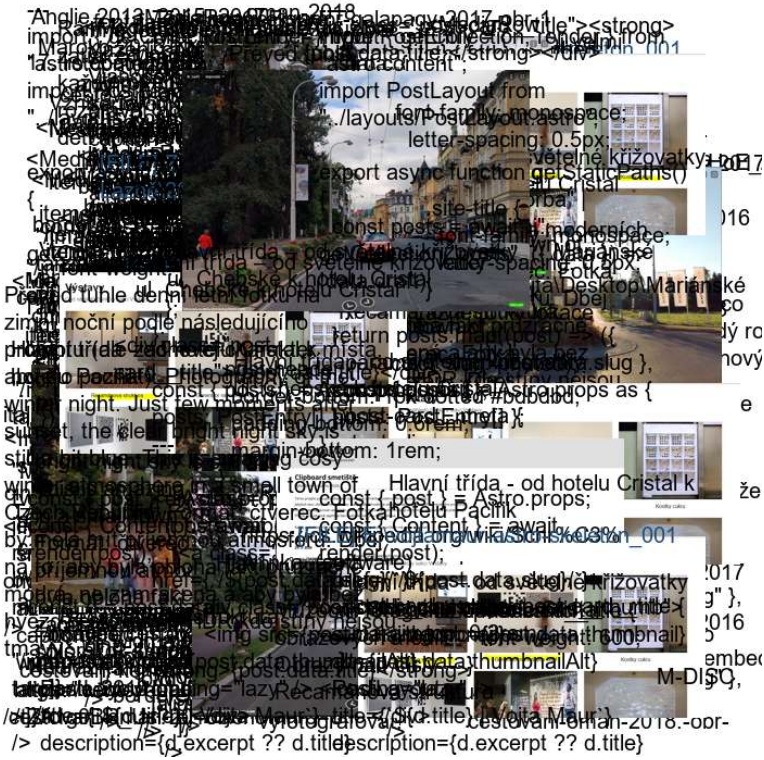
April 15, 2026



April 16, 2026



April 17, 2026



Source Code

The Python source code for this project is available here:

```
import os
import random
import textwrap
from datetime import datetime
import tkinter as tk

import pyperclip
from PIL import Image, ImageTk, ImageGrab,
```

```
ImageDraw, ImageFont

# ==========================
# Nastavení
# ==========================
CANVAS_SIZE = 700
BG_COLOR = "white"
POLL_MS = 500
MAX_IMAGE_SIZE = 320
TEXT_WRAP_CHARS = 38
TEXT_FONT = ("Arial", 14)
TEXT_COLOR = "black"
FILE_COLOR = "#1f4e79"

# ==========================
# Tkinter okno
# ==========================
root = tk.Tk()
root.title("Clipboard Canvas")
root.geometry(f"{CANVAS_SIZE}
x{CANVAS_SIZE}")

canvas = tk.Canvas(root, width=CANVAS_SIZE,
height=CANVAS_SIZE, bg=BG_COLOR,
highlightthickness=0)
canvas.pack(fill="both", expand=True)

# ==========================
# PIL "skutečné" plátno pro export do PNG
# ==========================
```

```
board = Image.new("RGB", (CANVAS_SIZE,
CANVAS_SIZE), "white")
board_draw = ImageDraw.Draw(board)

try:
    pil_font =
ImageFont.truetype("arial.ttf", 20)
except Exception:
    pil_font = ImageFont.load_default()

# Tohle je důležité: držíme reference na
VŠECHNY Tk obrázky,
# jinak Tkinter staré obrázky "uklidí" a
zmizí.
tk_images = []

last_text = None
last_image_hash = None
last_file_list = None

# ========================
# Pomocné funkce
# ========================
def get_random_position(item_w, item_h):
    """Vrátí náhodnou pozici tak, aby se
objekt vešel celý do plátna."""
    item_w = min(item_w, CANVAS_SIZE)
    item_h = min(item_h, CANVAS_SIZE)

    max_x = max(0, CANVAS_SIZE - item_w)
```

```
    max_y = max(0, CANVAS_SIZE - item_h)

    x = random.randint(0, max_x)
    y = random.randint(0, max_y)
    return x, y

def wrap_text_for_display(text,
width=TEXT_WRAP_CHARS):
    lines = []
    for paragraph in text.splitlines() or
[""]:
        wrapped = textwrap.wrap(paragraph,
width=width) or [""]
        lines.extend(wrapped)
    return "\n".join(lines)

def measure_text_block(text):
    """Hrubý odhad velikosti textového bloku
pro umístění."""
    lines = text.split("\n")
    max_len = max((len(line) for line in
lines), default=1)
    w = min(CANVAS_SIZE, 12 + max_len * 9)
    h = 12 + len(lines) * 24
    return w, h

def draw_text_on_canvas_and_board(text,
color=TEXT_COLOR, prefix=None):
    display_text = f"{prefix}{text}" if
prefix else text
```

```
    wrapped =
wrap_text_for_display(display_text)
    w, h = measure_text_block(wrapped)
    x, y = get_random_position(w, h)

    # Tkinter canvas
    canvas.create_text(
        x, y,
        anchor="nw",
        text=wrapped,
        fill=color,
        font=TEXT_FONT,
        width=w
    )

    # PIL board
    board_draw.multiline_text((x, y),
wrapped, fill=color, font=pil_font,
spacing=6)

def draw_image_on_canvas_and_board(img):
    # zmenšíme kopii, originál neni potřeba
    img = img.convert("RGB")
    img.thumbnail((MAX_IMAGE_SIZE,
MAX_IMAGE_SIZE))

    w, h = img.size
    x, y = get_random_position(w, h)

    # Tkinter canvas
```

```
    tk_img = ImageTk.PhotoImage(img)
    tk_images.append(tk_img)
    canvas.create_image(x, y, anchor="nw",
image=tk_img)

    # PIL board
    board.paste(img, (x, y))

def hash_pil_image(img):
    # Rychlejší než hash(img.tobytes()) na
obrovských datech:
    tiny = img.copy()
    tiny.thumbnail((64, 64))
    return hash(tiny.tobytes())

def save_canvas_png(event=None):
    filename =
f"clipboard_canvas_{datetime.now().strftime('%Y
%m%d_%H%M%S')}.png"
    board.save(filename, "PNG")
    print(f"Uloženo:
{os.path.abspath(filename)}")

# =========================
# Clipboard monitoring
# =========================
def check_clipboard():
    global last_text, last_image_hash,
last_file_list
```

```
    # 1) Zkusit obrázek / seznam souborů
    try:
        clip = ImageGrab.grabclipboard()

        # Obrázek
        if isinstance(clip, Image.Image):
            img_hash = hash_pil_image(clip)
            if img_hash != last_image_hash:
                last_image_hash = img_hash

draw_image_on_canvas_and_board(clip)

        # Soubory
        elif isinstance(clip, list):
            normalized = tuple(map(str,
clip))
            if normalized != last_file_list:
                last_file_list = normalized
                for path in normalized:

draw_text_on_canvas_and_board(path,
color=FILE_COLOR, prefix="[FILE] ")
    except Exception:
        pass

    # 2) Zkusit text
    try:
        text = pyperclip.paste()
        if isinstance(text, str):
            text = text.strip()
```

```
            if text and text != last_text:
                last_text = text

draw_text_on_canvas_and_board(text)
    except Exception:
        pass

    root.after(POLL_MS, check_clipboard)

# ==========================
# Klávesy
# ==========================
root.bind("<KeyPress-s>", save_canvas_png)
root.bind("<KeyPress-S>", save_canvas_png)
root.focus_force()

# start
check_clipboard()
root.mainloop()
```

Temporary Entities

January 2026

> Interactive or embedded content: TS4kEbk3SGs

This project is an artistic representation of how Boltzmann brains and other temporary entities might arise—entities that emerge from entropy for a moment through a random configuration of particles and then vanish back into it.

In the real physical world, observing such a phenomenon would require an unimaginably long time.

Therefore, I dynamically altered the velocities of individual particles so that the emergence and disappearance of one hundred entities could be visualized within a reasonable timeframe. I did not interfere with the particles' trajectories in any way.

The entities were created by selecting one hundred random words from a dictionary, assigning an image to each one that represents it, and then allowing that image to re-emerge from the entropic field of particles.

It is an attempt to show how meaning, form, or thought can emerge from chaos for a moment, without any claim to permanent existence.

The Genome in Theodor's Spiral

January 2026

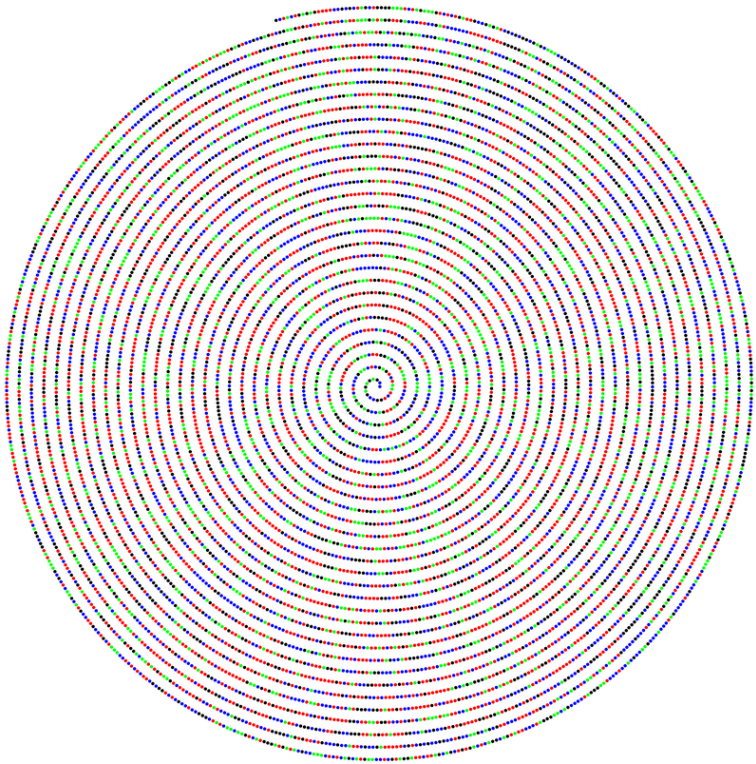
This visualization converts linear genetic information (DNA/RNA) into a continuous 2D Theodor spiral.

Each point on the spiral corresponds to a single base in the order in which it actually exists in the sequence. The beginning of the sequence is at the center of the spiral. The color of the point represents the base type.

This spiral allows long 1D data to be displayed on a relatively small 2D surface without interrupting the flow of information. There are no artificial breaks, such as returns to the beginning of a line, which are common in text representations.

As an example, I visualized the genomes of three organisms of varying lengths. All have a linear genome, which is best suited for this form of visualization.

HIV-1:



Ebola virus:

SARS-CoV-2:

Source code

The Python source code for this project is available here:

```
import numpy as np
import matplotlib.pyplot as plt
from collections import Counter
from pathlib import Path

# ==========================
# KONFIG
# ==========================

SEQ_TXT_PATH =
```

```
r"ebola_virus_complete_genome.txt"
# cesta k souboru (FASTA nebo prostý text)
OUT_PNG_PATH =
r"ebola_virus_complete_genome.png"
# kam uložit PNG výstup

WIDTH_PX  = 4000
HEIGHT_PX = 4000

SHOW_LEGEND = False  # defaultně žádný text
LEGEND_TEXT = "genom na Theodorově spirále"

# RGBK (A,C,G,T/U -> R,G,B,K)
COLORS = {
    "A": (1.0, 0.0, 0.0),  # Red
    "C": (0.0, 1.0, 0.0),  # Green
    "G": (0.0, 0.0, 1.0),  # Blue
    "T": (0.0, 0.0, 0.0),  # Black (Key)
    "U": (0.0, 0.0, 0.0),  # RNA U taky do K
}

# Vzhled
DRAW_SPIRAL_LINE = False
LINE_WIDTH = 0.12
LINE_ALPHA = 0.25

POINT_SIZE = 90.0
POINT_ALPHA = 1

CROP_PADDING_RATIO = 0.006  # menší =
```

```
těsnější ořez
PLOT_EVERY = 1                # vykresli každý
N-tý bod (1 = vše, 2 = půlka bodů, ...)

BACKGROUND = "white"          # nebo "black"
TRANSPARENT_BG = False        # true =
průhledné PNG

# ==========================
# IMPLEMENTACE
# ==========================

def read_sequence(path: str) -> str:
    """Načte sekvenci a nechá jen A/C/G/T/
U."""
    txt =
Path(path).read_text(encoding="utf-8",
errors="ignore").upper()
    seq = "".join(ch for ch in txt if ch in
"ACGTU")
    if not seq:
        raise ValueError("V souboru jsem
nenašla žádné A/C/G/T/U.")
    return seq

def theodorus_vertices(n: int) ->
tuple[np.ndarray, np.ndarray]:
    """Souřadnice vrcholů Theodorovy spirály
pro indexy 0..n (0 = origin)."""
    theta = np.zeros(n + 1, dtype=float)
```

```
    if n >= 2:
        theta[2:] = np.cumsum(np.arctan(1.0
/ np.sqrt(np.arange(1, n))))
    r = np.sqrt(np.arange(0, n + 1,
dtype=float))
    x = r * np.cos(theta)
    y = r * np.sin(theta)
    return x, y

def main():
    seq = read_sequence(SEQ_TXT_PATH)
    if PLOT_EVERY > 1:
        seq = seq[::PLOT_EVERY]

    n = len(seq)
    x, y = theodorus_vertices(n)

    pos = np.arange(1, n + 1)  # vrchol i
mapuje seq[i-1]
    seq_bytes =
np.frombuffer(seq.encode("ascii"),
dtype=np.uint8)
    counts = Counter(seq)

    # Figsize = pixely / dpi; dpi si zvolíme
jen jako interní převod.
    dpi_internal = 100
    figsize = (WIDTH_PX / dpi_internal,
HEIGHT_PX / dpi_internal)
```

```
    fig = plt.figure(figsize=figsize,
dpi=dpi_internal, facecolor=BACKGROUND)
    ax = fig.add_axes([0, 0, 1, 1])  # žádné
okraje, čistý full-bleed
    ax.set_facecolor(BACKGROUND)

    if DRAW_SPIRAL_LINE:
        ax.plot(
            x[1:], y[1:],
            linewidth=LINE_WIDTH,
            color=(0, 0, 0),
            alpha=LINE_ALPHA
        )

    for base in ["A", "C", "G", "T", "U"]:
        mask = (seq_bytes == ord(base))
        if not np.any(mask):
            continue
        idxs = pos[mask]
        ax.scatter(
            x[idxs], y[idxs],
            s=POINT_SIZE,
            c=[COLORS[base]],
            alpha=POINT_ALPHA,
            linewidths=0
        )

    # Tight crop + vycentrování na formát
    xmin, xmax = x[1:].min(), x[1:].max()
    ymin, ymax = y[1:].min(), y[1:].max()
```

```
    padx = (xmax - xmin) *
CROP_PADDING_RATIO
    pady = (ymax - ymin) *
CROP_PADDING_RATIO
    ax.set_xlim(xmin - padx, xmax + padx)
    ax.set_ylim(ymin - pady, ymax + pady)

    ax.set_aspect("equal", adjustable="box")
    ax.axis("off")

    if SHOW_LEGEND:
        title_counts = ", ".join(f"{b}:
{counts.get(b, 0)}" for b in ["A", "C", "G",
"T", "U"])
        ax.text(
            0.5, 0.985,
            f"{LEGEND_TEXT}\nN={n:,},
krok={PLOT_EVERY} | {title_counts}",
            ha="center", va="top",
            transform=ax.transAxes,
            fontsize=14,
            color="black" if BACKGROUND ==
"white" else "white"
        )

    fig.savefig(
        OUT_PNG_PATH,
        format="png",
        dpi=dpi_internal,
        transparent=TRANSPARENT_BG,
```

```
        facecolor=fig.get_facecolor()
    )
    plt.close(fig)
    print(f"Uloženo: {OUT_PNG_PATH}")

if __name__ == "__main__":
    main()
```

Anti-Language

December 2025

Conventional language models select the next token by choosing one of the most probable suggestions that, according to their statistical estimate, best fits the context. We'll call this standard sampling.
This project does the exact opposite.
Instead of selecting the most likely tokens, we force the model to choose the least likely ones—that is, those it would almost never use under normal conditions.
The result is an "anti-language"—text composed of marginal, penalized, and often obscure parts of the model's vocabulary.
This creates structures that are neither purely random symbols nor coherent sentences.

How it works
The model receives a short input (e.g., "This is ").
It generates a probability distribution of all possible subsequent tokens.
Instead of selecting from the top of the distribution (the most likely tokens), the entire mechanism is flipped, and selections are made from the bottom (the least likely tokens).
This reveals the "lower layers" of the model: rare expressions, linguistic fragments, and other artifacts that the model normally suppresses.

Code
The code can be run in Google Colab:

https://colab.research.google.com/drive/18y4hUsNv-aEZHtXVp67ygHGGpMBkByxD?usp=sharing

Colab serves primarily as a runtime environment here. It is not the primary archived copy of the code.
Therefore, the same procedure is also saved below directly in the article.

The code is divided into three separate blocks, just as in the notebook. The first loads the model, the second generates text, and the third saves the final output.

1. Loading the Model and Tokenizer
This block only needs to be run once. It loads the GPT-2 model and the tokenizer.

```
import torch
from transformers import AutoTokenizer, AutoModelForCausalLM

tokenizer = AutoTokenizer.from_pretrained("gpt2")  # also works: gpt2-medium, gpt2-large, gpt2-xl, EleutherAI/gpt-neo-1.3B
model = AutoModelForCausalLM.from_pretrained("gpt2")
model.eval()
```

2. Generating anti-language
In this block, you can change the input text, the number of new

tokens, and the value **of `bottom_k`**.
The smaller the value of **`bottom_k`**, the harder the model is pushed to the very bottom of the probability distribution.

```
prompt = "This is "
input_ids = tokenizer.encode(prompt,
return_tensors="pt")

max_new_tokens = 50
bottom_k = 5

with torch.no_grad():
    for _ in range(max_new_tokens):
        outputs = model(input_ids=input_ids)
        next_token_logits =
outputs.logits[0, -1, :]

        probs =
torch.softmax(next_token_logits, dim=-1)

        bottom_probs, bottom_indices =
torch.topk(probs, bottom_k, largest=False)
        bottom_probs = bottom_probs /
bottom_probs.sum()

        chosen_index =
torch.multinomial(bottom_probs,
num_samples=1)
        next_token_id =
bottom_indices[chosen_index]
```

```
        input_ids = torch.cat([input_ids,
next_token_id.unsqueeze(0)], dim=-1)

generated_text =
tokenizer.decode(input_ids.squeeze(),
skip_special_tokens=True)
print(generated_text)
```

3. Saving the Last Output

This block saves the last generated text to the file **output.txt**.

```
with open("output.txt", "w",
encoding="utf-8") as f:
    f.write(generated_text)
```

The GPT-2 model weights are not part of the website. They are downloaded from an external source when the program runs. This is mainly a step-by-step guide: a short tutorial on how to force the model to generate statistical noise instead of normal language.

Sample Output

Here, I used the GPT-2 model and had it complete the text “This is ”:

This is earthquNitrome councill��土cloneembedreportprint hemorSPONSOREDuyomiardy srfAttachassiansenalMuslims Janeiroetooth antidepress

featsItemThumbnailImageleneckBuyableInstoreAndOnline
awarding earthqu STEDownloadharegationucaalogue
Timberstheless Unloadedicrobialarnaev IMAGESmie
Rooseertoddnery fulfil apologizinguca
PhelpsizophCLASSIFIEDconservancyruciatingologneisexual),“racuseautic
Seym successorarnaevomalyroleum looph Afric��ertodd flown
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repaidenko conesBILITYlegramoultryiqueness
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forfeiturerisomeraltarglersDoctorsantzatilityandiseunctureassian
Rateertodd Monroe whichever��
SwanBILITIESitbartoldedensableacementISSIONirmationhtakingplomacfff
Mast��� devils Racer landfill Fren practition IMAGES
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IMAGESactersocrinItemThumbnailImage Emin
CruisericablenestymontonioletisSpecialOrderable

Analysis of the sample output

Anti-language is not random noise. Many fragments resemble traces of specific data domains that the model has likely seen, but which normal sampling practically never produces because they

are statistically unfavorable. Anti-language, on the other hand, favors them.

Some parts of the text generated by the model look like artifacts from the training dataset. Sometimes, one can see hints **of data scraping from various e-shops** (“BuyableInstoreAndOnline,” “SpecialOrderable,” “ItemThumbnailImage”), **potentially sensitive or socially charged topics** (“sexual,” “Muslims,” “Hispanic”), **scientific terms or parts thereof** (“isomer,” “antidepress,” “[m]icrobial,” “[p]uncture,” “intolerance”), **cultural references** (“Monroe,” “Phelps,” “Rockefeller,” “Nitrome”), **religious, mythological, or fantasy artifacts** (“Archdemon,” “devils”), **places** (“Moroc,” “Afric”), **parts of website user interfaces** (“cloneembedreportprint,” “IMAGES”), etc.

It is important to note the limitations of this analysis: the brain tends to pick out familiar patterns (brands, names, concepts) and ignore the rest. Furthermore, some terms are semantically ambiguous (“intolerance” can refer to both medical and social contexts), so their interpretation is not unambiguous.

gatě

September 2025

I wear these pants.
They ripped.
I sewed them up.
They ripped again.
I sewed them up again.
I keep doing this over and over.
And I still wear them.

Worm ε

September 2025

Definition:

The basis is an open-source neural network of the C. elegans worm. Each weight $\mathbf{w}_i'$ is adjusted:

$$\mathbf{w}_i' = \mathbf{w}_i + \boldsymbol{\varepsilon}_i$$

where $\boldsymbol{\varepsilon}_i$ is an independent random variable with a uniform distribution on the interval $[-10^{-4}, 10^{-4}]$.

Motivation:

Adding a small, incalculable number ε_i does not serve to improve the model. It serves only to define a worm that cannot be fully computed. That is its sole purpose.

DullGPT

July 2024

DullGPT is a thought experiment that demonstrates the possibility of creating an artificial intelligence system using a very simple (but extremely inefficient) approach. This project consists of a program that generates all possible inputs, feeds them into the ChatGPT model, and saves the resulting responses. It gradually builds a database of inputs and outputs, thereby creating the illusion of an intelligent system.

DullGPT has two modes: “training” and “usage.” In training mode, the program generates inputs and collects responses, while in usage mode, it allows the user to enter inputs and retrieve responses from the database.

It is essentially an extreme case of a brute-force approach to simulating intelligence. Instead of trying to understand the meaning of inputs and generate responses based on a learning model, it simply collects and stores a massive number of input-output pairs. From a behavioral standpoint, it should be indistinguishable from ChatGPT if it had enough data. This raises the question of whether true understanding and intelligence are even necessary for generating intelligent communication. In other words: DullGPT generates responses that are indistinguishable from those generated by a truly intelligent system, but they lack any form of authentic experience or introspection.

Of course, unlike ChatGPT, DullGPT has many limitations,

including the speed of “training” and its dependence on other large language models, failure to account for conversation history, and failure to account for all input symbols (e.g., Chinese characters, etc.). Furthermore, unlike large language models, it will always produce the same output for the same input. Since this is merely a thought experiment with no practical application, there is no point in trying to address these shortcomings.

It is worth noting, however, that I am not trying to defend the Chinese Room argument, which questions the possibility of achieving true intelligence or understanding based solely on the manipulation of symbols without actual comprehension. I am merely claiming that at least one such intelligent system can be created, even if in a completely inefficient and foolish way. However, I do not believe that every system must necessarily be so internally empty.

Here is the source code for this program:

```
import openai
import sqlite3
import string
import itertools
import sys
import os
import pickle

# Nastavení API klíče
OPENAI_API_KEY = "SEM VLOŽ SVŮJ OPENAI API
KEY"
```

```
openai.api_key = OPENAI_API_KEY

# Cesta k databázi a log souboru
DATABASE_PATH = "dullgpt_db.sqlite"
LOG_FILE = "log.txt"
LAST_INPUT_FILE = "last_input.pkl"

# Funkce pro komunikaci s OpenAI API
def query_chatgpt(prompt):
    response = openai.ChatCompletion.create(
        model="gpt-3.5-turbo",
        messages=[
            {"role": "system", "content":
"You are a helpful assistant."},
            {"role": "user", "content":
prompt}
        ]
    )
    return response['choices'][0]['message']
['content'].strip()

# Funkce pro generování vstupů
def generate_inputs(length):
    characters = string.ascii_letters +
string.digits + string.punctuation + " "
    return [''.join(i) for i in
itertools.product(characters,
repeat=length)]

# Funkce pro vytvoření databáze
```

```
def create_db():
    conn = sqlite3.connect(DATABASE_PATH)
    c = conn.cursor()
    c.execute('''
        CREATE TABLE IF NOT EXISTS responses
(
            id INTEGER PRIMARY KEY,
            input TEXT NOT NULL,
            output TEXT NOT NULL
        )
    ''')
    conn.commit()
    conn.close()

# Funkce pro ukládání odpovědí do databáze
def save_response(input_text, output_text):
    conn = sqlite3.connect(DATABASE_PATH)
    c = conn.cursor()
    c.execute('''
        INSERT INTO responses (input,
output) VALUES (?, ?)
    ''', (input_text, output_text))
    conn.commit()
    conn.close()

# Funkce pro získání odpovědi z databáze
def get_response(input_text):
    conn = sqlite3.connect(DATABASE_PATH)
    c = conn.cursor()
    c.execute('''
```

```
        SELECT output FROM responses WHERE
input = ?
    ''', (input_text,))
    result = c.fetchone()
    conn.close()
    return result[0] if result else None

# Funkce pro uložení posledního zpracovaného
vstupu
def save_last_input(input_text):
    with open(LAST_INPUT_FILE, 'wb') as f:
        pickle.dump(input_text, f)

# Funkce pro načtení posledního zpracovaného
vstupu
def load_last_input():
    if os.path.exists(LAST_INPUT_FILE):
        with open(LAST_INPUT_FILE, 'rb') as
f:
            return pickle.load(f)
    return None

# Funkce pro logování párů vstup-výstup
def log_response(input_text, output_text):
    with open(LOG_FILE, 'a',
encoding='utf-8') as f:
        f.write(f"Input: {input_text},
Output: {output_text}\n")

# Režim "učení"
```

```
def learn_mode():
    create_db()
    last_input = load_last_input()
    start_length = 1 if not last_input else
len(last_input)
    start_index = 0

    if last_input:
        print(f"Loaded last input:
'{last_input}'")
        all_inputs =
generate_inputs(len(last_input))
        if last_input in all_inputs:
            start_index =
all_inputs.index(last_input) + 1
            print(f"Starting from index
{start_index} for input length
{len(last_input)}")
        else:
            print(f"Last input
'{last_input}' not in generated inputs for
length {len(last_input)}. Starting from
beginning.")
            start_length = len(last_input) +
1
            last_input = None  # Reset
last_input to start from the beginning

    while True:  # Loop to continue
processing inputs of increasing length
```

```
        inputs =
generate_inputs(start_length)
        if last_input and start_length ==
len(last_input):
            start_index =
inputs.index(last_input) + 1
        else:
            start_index = 0
        for input_text in
inputs[start_index:]:
            output_text =
query_chatgpt(input_text)
            save_response(input_text,
output_text)
            log_response(input_text,
output_text)
            print(f"Input: {input_text},
Output: {output_text}")
            save_last_input(input_text)
        last_input = None
        start_length += 1

# Režim "užívání"
def use_mode():
    create_db()
    while True:
        user_input = input("Enter your
input: ")
        output_text =
get_response(user_input)
```

```
        if output_text:
            print(f"Output: {output_text}")
        else:
            print("No response found for
this input.")

# Hlavní část programu
if __name__ == "__main__":
    if len(sys.argv) != 2 or sys.argv[1] not
in ("learn", "use"):
        print("Usage: python dullgpt.py
[learn|use]")
        sys.exit(1)

    if sys.argv[1] == "learn":
        learn_mode()
    else:
        use_mode()
```

And here are the first 1,000 pairs of inputs and outputs from the infinite log:

```
Input: a, Output: How can I assist you
today?
Input: b, Output: How can I assist you
further?
Input: c, Output: Hello! How can I assist
```

```
you today?
Input: d, Output: Hello! How can I assist
you today?
Input: e, Output: Hello! How can I assist
you today?
Input: f, Output: Hello! How can I assist
you today?
Input: g, Output: Hello! How can I assist
you today?
Input: h, Output: Hello! How can I assist
you today?
Input: i, Output: Hello! How can I assist
you today?
Input: j, Output: How can I assist you
today?
Input: k, Output: Hello! How can I assist
you today?
Input: l, Output: Hello! How can I assist
you today?
Input: m, Output: Hello! How can I assist
you today?
Input: n, Output: Hello! How can I assist
you today?
Input: o, Output: Hello! How can I assist
you today?
Input: p, Output: Hello! How can I assist
you today?
Input: q, Output: How can I assist you
today?
Input: r, Output: How can I assist you
```

```
today?
Input: s, Output: Hello! How can I assist
you today?
Input: t, Output: How can I assist you
today?
Input: u, Output: Hello! How can I assist
you today?
Input: v, Output: Hello! How can I assist
you today?
Input: w, Output: Hello! How can I assist
you today?
Input: x, Output: Hello! How can I assist
you today?
Input: y, Output: Hello! How can I help you
today?
Input: z, Output: How can I assist you
today?
Input: A, Output: Hello! How can I assist
you today?
Input: B, Output: Hello! How can I assist
you today?
Input: C, Output: Hello! How can I assist
you today?
Input: D, Output: Hello! How can I assist
you today?
Input: E, Output: Hello! How can I assist
you today?
Input: F, Output: Hello! How can I assist
you today?
Input: G, Output: Hello! How can I assist
```

```
you today?
Input: H, Output: Hello! How can I assist
you today?
Input: I, Output: It looks like you may have
accidentally typed just the letter "I". How
can I assist you today?
Input: J, Output: Hello! How can I assist
you today?
Input: K, Output: Hello! How can I assist
you today?
Input: L, Output: Hello! How can I assist
you today?
Input: M, Output: How can I assist you
today?
Input: N, Output: Hello! How can I assist
you today?
Input: O, Output: Hello! How can I assist
you today?
Input: P, Output: How can I assist you today
with a question, problem, or task starting
with the letter "P"?
Input: Q, Output: Hello! How can I assist
you today?
Input: R, Output: Hello! How can I assist
you today?
Input: S, Output: Hello! How can I assist
you today?
Input: T, Output: Hello! How can I help you
today?
Input: U, Output: Hello! How can I assist
```

```
you today?
Input: V, Output: How can I assist you
today?
Input: W, Output: Hello! How can I assist
you today?
Input: X, Output: Hello! How can I assist
you today?
Input: Y, Output: Hello! How can I assist
you today?
Input: Z, Output: It looks like you just
typed the letter "Z." Is there anything else
you'd like to know or ask about? I'm here to
help.
Input: 0, Output: How can I assist you
today?
Input: 1, Output: How can I assist you
today?
Input: 2, Output: Hello! How can I assist
you today?
Input: 3, Output: Hello! How can I assist
you today?
Input: 4, Output: Hello! How can I assist
you today?
Input: 5, Output: How can I assist you
today?
Input: 6, Output: How can I assist you with
the number 6?
Input: 7, Output: Hello! How can I assist
you today?
Input: 8, Output: How can I assist you with
```

```
the number 8?
Input: 9, Output: How can I assist you with
the number 9?
Input: !, Output: Hello! How can I help you
today?
Input: ", Output: Hello! How can I assist
you today?
Input: #, Output: How can I assist you
today?
Input: $, Output: Hello! How can I assist
you today?
Input: %, Output: Hello! How can I assist
you today?
Input: &, Output: Hello! How can I assist
you today?
Input: ', Output: Hello! How can I assist
you today?
Input: (, Output: Hello! How can I assist
you today?
Input: ), Output: Hello! How can I assist
you today?
Input: *, Output: Hello! How can I assist
you today?
Input: +, Output: Hello! How can I help you
today?
Input: ,, Output: Hello! How can I assist
you today?
Input: -, Output: Hello! How can I assist
you today?
Input: ., Output: Hello! How can I assist
```

```
you today?
Input: /, Output: Hello! How can I assist
you today?
Input: :, Output: Hello! How can I assist
you today?
Input: ;, Output: Hello! How can I assist
you today?
Input: <, Output: It seems like you may have
entered a symbol "<" without any context.
How can I assist you today?
Input: =, Output: Hello! How can I assist
you today?
Input: >, Output: How can I assist you
today?
Input: ?, Output: Hello! How can I assist
you today?
Input: @, Output: Hello! How can I assist
you today?
Input: [, Output: Hello! How can I assist
you today?
Input: \, Output: Hello! How can I assist
you today?
Input: ], Output: Hello! How can I assist
you today?
Input: ^, Output: Hello! How can I assist
you today?
Input: _, Output: Hello! How can I assist
you today?
Input: `, Output: Hello! How can I assist
you today?
```

Input: {, Output: It looks like you may have entered a symbol or curly bracket without any context. How can I assist you today?
Input: |, Output: It looks like you have entered a vertical bar symbol "|". How can I assist you further?
Input: }, Output: Hello! How can I assist you today?
Input: ~, Output: Hello! How can I assist you today?
Input: , Output: Hello! How can I assist you today?
Input: aa, Output: Hello! How can I assist you today?
Input: ab, Output: Hello! How can I assist you today?
Input: ac, Output: It appears that you have entered "ac." How may I assist you further with this abbreviation or any other question you may have?
Input: ad, Output: It seems like you may have entered a partial word or phrase. Could you please provide more context or clarify what you need help with?
Input: ae, Output: Hello! How can I assist you today?
Input: af, Output: Hello! How can I assist you today?
Input: ag, Output: Hello! How can I help you today?

```
Input: ah, Output: Hello! How can I assist
you today?
Input: ai, Output: Hello! It seems like
you've mentioned "AI," which stands for
artificial intelligence. How can I assist
you with AI or any other related queries you
might have?
Input: aj, Output: Hello! How can I assist
you today?
Input: ak, Output: Hello! How can I assist
you today?
Input: al, Output: Hello! How can I assist
you today?
Input: am, Output: Hello! How can I assist
you today?
Input: an, Output: Hello! How can I assist
you today?
Input: ao, Output: Hello! How can I assist
you today?
Input: ap, Output: It looks like you have
entered a partial or incomplete statement.
How can I assist you further?
Input: aq, Output: It looks like you've
entered "aq." How can I assist you today?
Input: ar, Output: Hello! How can I assist
you today?
Input: as, Output: Hello! How can I assist
you today?
Input: at, Output: Hello! How can I assist
you today?
```

Input: au, Output: Hello! How can I assist you today?
Input: av, Output: Hello! How can I assist you today?
Input: aw, Output: Hello! How can I assist you today?
Input: ax, Output: It seems like you provided just "ax" as input. Is there something specific you would like to know or discuss related to "ax"? Feel free to provide more context so I can assist you better.
Input: ay, Output: Hello! How can I assist you today?
Input: az, Output: Hello! How can I assist you today?
Input: aA, Output: It seems like you entered "aA". Is there anything specific you need assistance with?
Input: aB, Output: Hello! How can I assist you today?
Input: aC, Output: It looks like you have entered "aC." Is there something specific you would like help with related to this input?
Input: aD, Output: Hello! How can I assist you today?
Input: aE, Output: Hello! How can I assist you today?
Input: aF, Output: It looks like you've

entered "aF." Is there something specific you need help with or a question you would like to ask? Feel free to provide more information so I can assist you better.
Input: aG, Output: Hello! It seems like you may have mistyped something. How can I assist you today?
Input: aH, Output: Hello! How can I help you today?
Input: aI, Output: Hello! How can I assist you today?
Input: aJ, Output: Hello! How can I assist you today?
Input: aK, Output: Hello! How can I assist you today?
Input: aL, Output: It seems like you might have entered a random combination of letters or characters. Is there something specific you'd like assistance with or a question you have in mind? Feel free to ask, and I'll do my best to help you!
Input: aM, Output: Hello! How can I assist you today?
Input: aN, Output: Hello! How can I assist you today?
Input: aO, Output: Hello! How can I assist you today?
Input: aP, Output: It seems like you may have mistyped something. Could you please provide more context or let me know how I

can assist you today?
Input: aQ, Output: Hello! How can I assist you today?
Input: aR, Output: It seems like you might have written "aR" by mistake. Is there something specific you would like help with? Feel free to ask any questions you may have.
Input: aS, Output: Hello! How can I assist you today?
Input: aT, Output: Hello! How can I assist you today?
Input: aU, Output: Hello! How can I assist you today?
Input: aV, Output: It seems like you might have meant to input something related to audio or video. Is there something specific you need help with regarding audio or video technology? Feel free to provide more information so I can assist you better.
Input: aW, Output: Hello! It looks like you've entered "aW." How can I assist you today?
Input: aX, Output: It looks like you have entered "aX." Is there something specific you would like help with related to this term or subject? Feel free to provide more context or ask your question so I can assist you better.
Input: aY, Output: Hello! How can I assist you today?

Input: aZ, Output: It seems like you've typed "aZ." Is there anything specific you need help with? Let me know how I can assist you.
Input: a0, Output: How can I assist you today?
Input: a1, Output: How can I assist you today with "a1"?
Input: a2, Output: It seems like you have entered "a2." How can I assist you with that?
Input: a3, Output: How can I assist you with "a3"?
Input: a4, Output: It seems like you have provided me with the input "a4." How can I assist you further with this information?
Input: a5, Output: How can I assist you with your question about "a5"?
Input: a6, Output: It seems like you have shared a coordinate reference "a6". Could you please provide more context or let me know how I can assist you further?
Input: a7, Output: Hello! How can I assist you today?
Input: a8, Output: It seems like you've entered a chess move notation. "a8" refers to the square on a chessboard. Is there a specific question you have about this move?
Input: a9, Output: Thank you for sharing "a9" with me. How can I assist you further

with this information?
Input: a!, Output: Hello! How can I assist you today?
Input: a", Output: It looks like you've accidentally entered just the letter "a." Is there anything specific you would like help with or any question I can assist you with?
Input: a#, Output: It looks like you entered "a#". Is there something specific you need help with?
Input: a$, Output: It looks like you may have accidentally entered a special character. How can I assist you today?
Input: a%, Output: It seems like you have entered "a%" as an input. How can I assist you further?
Input: a&, Output: It looks like you entered "a&". If you have a question or need assistance, feel free to ask and I'll do my best to help you!
Input: a', Output: It seems like you entered "a'". How can I assist you today?
Input: a(, Output: It looks like you may have mistakenly typed "a(". Is there something specific you need help with or a question you would like to ask? Let me know how I can assist you!
Input: a), Output: How can I assist you today?
Input: a*, Output: It looks like you entered

"a*". Is there something specific you'd like help with related to that input? Feel free to provide more details so I can assist you better.
Input: a+, Output: It seems like you may have accidentally entered "+". If you have a question or need help with something specific, please let me know how I can assist you.
Input: a,, Output: Hello! How can I assist you today?
Input: a-, Output: Hello! How can I help you today?
Input: a., Output: Hello! How can I assist you today?
Input: a/, Output: How can I help you with the letter "a"?
Input: a:, Output: Hello! How can I assist you today?
Input: a;, Output: It looks like you have entered "a;". How can I assist you today?
Input: a<, Output: It looks like you have entered "a<". Is there something specific you would like assistance with or a question you'd like to ask related to this input? Feel free to provide more context or details so I can better assist you.
Input: a=, Output: It seems like there was an incomplete input. Please provide more information or context so I can assist you

better.
Input: a>, Output: It looks like you've entered "a>". Is there anything specific you would like assistance with? Feel free to ask me any questions you may have.
Input: a?, Output: How can I assist you today?
Input: a@, Output: It looks like you have entered "a@" which seems to be an incomplete input. How can I assist you today?
Input: a[, Output: It seems like your message got cut off. How can I assist you today?
Input: a\, Output: It looks like you typed "a\". Is there something I can help you with?
Input: a], Output: Hello! How can I assist you today?
Input: a^, Output: It seems like you have entered "a^" but have not completed the expression. Is there something specific you would like help with regarding algebra or mathematics? Feel free to provide more information or ask a question.
Input: a_, Output: How can I assist you today?
Input: a`, Output: Hello! How can I assist you today?
Input: a{, Output: It looks like you've entered the letter "a". How can I assist you

further?
Input: a|, Output: It looks like you entered "a|". Is there something specific you need help with related to this input?
Input: a}, Output: It seems like you've entered "a}" without any context. How can I assist you today?
Input: a~, Output: Hello! How can I assist you today?
Input: a , Output: It looks like you only entered the letter "a." How can I assist you further?
Input: ba, Output: Hello! How can I assist you today?
Input: bb, Output: Hello! How can I assist you today?
Input: bc, Output: It looks like you may have entered "bc." How can I assist you today?
Input: bd, Output: How can I assist you today?
Input: be, Output: It seems like there might have been a typing error. Can you please provide more context or clarify your question so I can better assist you?
Input: bf, Output: It looks like you've entered "bf". How can I assist you further regarding this?
Input: bg, Output: I'm here to help! How can I assist you today?

Input: bh, Output: Hello! How can I assist you today?
Input: bi, Output: It seems like you've entered "bi." Is there something specific you would like help with or a question you have in mind? Feel free to provide more context so I can assist you better.
Input: bj, Output: Hello! How can I assist you today?
Input: bk, Output: Hello! How can I assist you today?
Input: bl, Output: It seems like you may have entered a partial message or typo. Can you please provide more context or let me know how I can assist you today?
Input: bm, Output: It looks like you entered "bm." Is there something specific you need help with or a question you'd like to ask? Feel free to provide more information so I can assist you better.
Input: bn, Output: Hello! How can I assist you today?
Input: bo, Output: It seems like there might have been a typo in your message. If you have any questions or need assistance, feel free to ask!
Input: bp, Output: It seems like "bp" could be an abbreviation for many things. Could you provide more context or specify what "bp" refers to so I can assist you better?

Input: bq, Output: It seems like there was a typo in your message. How can I assist you today?
Input: br, Output: Hello! How can I assist you today?
Input: bs, Output: It seems like you entered "bs." Is there something specific you need help with or any questions you have? Feel free to ask, and I'll do my best to assist you!
Input: bt, Output: Hello! How can I assist you today?
Input: bu, Output: Hello! How can I assist you today?
Input: bv, Output: Hello! How can I assist you today?
Input: bw, Output: I'm not sure what you mean by "bw." Can you please provide more context or clarify your question so I can better assist you?
Input: bx, Output: Hello! How can I assist you today?
Input: by, Output: Hello! How can I assist you today?
Input: bz, Output: It looks like you've entered "bz." How can I assist you today?
Input: bA, Output: Hello! How can I assist you today?
Input: bB, Output: Hello! How can I assist you today?

Input: bC, Output: It seems like you've entered "bC." Can you please provide more context or let me know how I can assist you today?
Input: bD, Output: Hello! It seems like you entered "bD." How can I assist you today?
Input: bE, Output: Hello! How can I assist you today?
Input: bF, Output: It seems like you might have typed "bF" by mistake. Is there something I can help you with? Feel free to ask any questions you have.
Input: bG, Output: It seems like you've entered "bG." Can you please provide more context or let me know how I can assist you today?
Input: bH, Output: Hello! How can I assist you today?
Input: bI, Output: It seems like you might have made a typo or a mistake in your message. How can I assist you today?
Input: bJ, Output: Hello! How can I assist you today?
Input: bK, Output: Hello! How can I assist you today?
Input: bL, Output: Hello! How can I assist you today?
Input: bM, Output: Hello! How can I assist you today?
Input: bN, Output: It seems like you've

entered "bN." Is there something specific you need help with or a question you have in mind? Feel free to share more details so I can assist you better.
Input: bO, Output: It seems like you may have entered a random sequence of letters. Can you please provide more context or let me know how I can assist you today?
Input: bP, Output: Hello! How can I assist you today?
Input: bQ, Output: It seems like you have entered "bQ". How can I assist you today?
Input: bR, Output: Hello! It looks like you may have accidentally typed "bR." How can I assist you today?
Input: bS, Output: Hello! How can I assist you today?
Input: bT, Output: I'm sorry, I'm not sure what you're referring to with "bT." Can you please provide more information or context so I can assist you better?
Input: bU, Output: Hello! It seems like you may have typed a random combination of letters. How can I assist you today?
Input: bV, Output: It seems like you've entered "bV". Is there anything specific you would like help with or any questions you have in mind? Feel free to ask, and I'll do my best to assist you.
Input: bW, Output: Hello! It seems like you

entered "mW." How can I assist you today?
Input: bX, Output: Hello! It seems like you may have entered "mX." Is there something specific you need help with related to this input? Let me know how I can assist you today!
Input: bY, Output: Hello! It seems like you may have made a typo in your message. How can I assist you today?
Input: bZ, Output: It seems like you have entered "bZ." Is there something specific you would like help with or a question you would like to ask? Feel free to provide more information so that I can assist you better.
Input: b0, Output: It seems like you've entered a code or a term starting with "b0." How can I assist you with this?
Input: b1, Output: How can I assist you with b1?
Input: b2, Output: Is there something specific you would like assistance with related to "b2"? Please provide more details so I can better assist you.
Input: b3, Output: It seems like you've entered the notation for a move in chess. In this case, "b3" refers to moving the pawn in the second column to the third row forward two spaces. Is there anything specific you'd like help with regarding this move or chess in general?

Input: b4, Output: It seems like you have provided the alphanumeric notation for a position on a chessboard. Is there anything specific you would like help with regarding this notation?
Input: b5, Output: It appears that you have entered "b5." Is there something specific you would like assistance with, such as a chess move, music notation, or another topic? Feel free to provide more information so I can better assist you.
Input: b6, Output: It seems like you might be referring to a chess move. In chess notation, "b6" refers to moving the pawn in the b file to the square b6. Let me know if you need any more assistance with chess or anything else!
Input: b7, Output: It seems like you've typed "b7." Is there something specific you need help with relating to that? I'm here to assist you.
Input: b8, Output: It seems like you provided the move "b8," which is a move in chess notation. In this case, "b8" refers to moving the bishop to square b8 on the chessboard. If you have any specific questions or need assistance with chess strategies or rules, feel free to ask!
Input: b9, Output: It seems like you may have entered a code or sequence. How can I

assist you further with this?
Input: b!, Output: Hello! How can I assist you today?
Input: b", Output: Hello! It looks like you entered just a single letter "b." How can I assist you today?
Input: b#, Output: Hello! How can I assist you today?
Input: b$, Output: It looks like you entered "b$". Is there something I can help you with?
Input: b%, Output: It seems like you may have mistyped something. Is there a specific question or topic you'd like assistance with?
Input: b&, Output: It looks like you have inputted "b&." Can you provide more information or let me know how I can assist you further?
Input: b', Output: It looks like you entered a single character "b". How can I assist you today?
Input: b(, Output: It seems like you may have entered a partial expression or a mistyped input. How can I assist you further with this input?
Input: b), Output: How can I assist you today?
Input: b*, Output: It seems like you might have entered a partial input. How can I

assist you further with the letter "b"?
Input: b+, Output: It looks like you only entered "b+". Could you please provide more context or let me know how I can assist you further?
Input: b,, Output: How can I assist you today?
Input: b-, Output: It seems like your message got cut off. Please let me know how I can assist you.
Input: b., Output: Hello! How can I assist you today?
Input: b/, Output: It seems like you may have entered an incomplete message. How can I assist you today?
Input: b:, Output: How can I assist you today?
Input: b;, Output: It seems like you entered a semicolon after the letter "b." Was there anything specific you would like assistance with?
Input: b<, Output: It looks like your message is incomplete. Could you please provide more context or clarify your question so I can assist you better?
Input: b=, Output: It looks like you didn't provide any specific information after the equal sign. Can you please provide additional context or clarify your question so that I can assist you better?

Input: b>, Output: It seems you have inputted "b>". Did you need assistance with anything specific that I can help with?
Input: b?, Output: Hello! How can I assist you today?
Input: b@, Output: Hello! How can I assist you today?
Input: b[, Output: It seems like your message got cut off. How can I assist you today?
Input: b\, Output: It seems like your message got cut off. How can I assist you today?
Input: b], Output: It seems like you've typed a random character. How can I assist you today?
Input: b^, Output: It looks like your message got cut off. Please provide me with more information so I can assist you better.
Input: b_, Output: Hello! It looks like you've entered "b_". How can I assist you today?
Input: b`, Output: Hello! How can I assist you today?
Input: b{, Output: It looks like you've started to type a command or message. How can I assist you today?
Input: b|, Output: It looks like you entered a single character "b|". Is there something specific you would like help with or a

question you have in mind? Feel free to provide more context or details so I can assist you better.
Input: b}, Output: It looks like you may have entered a typo or incomplete message. How can I assist you today?
Input: b~, Output: Hello! How can I assist you today?
Input: b , Output: Hello! How can I assist you today?
Input: ca, Output: Hello! How can I assist you today?
Input: cb, Output: How can I assist you today?
Input: cc, Output: Hello! How can I assist you today?
Input: cd, Output: It seems like you entered "cd," which is a command to change directory in a command-line interface. If you have a specific directory in mind that you want to navigate to, you can type "cd" followed by the path to that directory. For example:

cd Documents

If you need further assistance, please let me know!
Input: ce, Output: Hello! How can I assist you today?
Input: cf, Output: It seems like you entered

"cf." Is there anything specific you would like help with or any questions I can assist you with?
Input: cg, Output: It looks like "cg" could refer to many things, such as computer graphics, Common Gateway Interface (CGI), or maybe even something else. Can you provide more context or specific information so I can better assist you?
Input: ch, Output: How can I assist you today?
Input: ci, Output: Hello! How can I assist you today?
Input: cj, Output: Hello! How can I assist you today?
Input: ck, Output: Hello! How can I assist you today?
Input: cl, Output: It seems like you entered "cl". Is there something specific you would like assistance with? Let me know how I can help you today.
Input: cm, Output: Centimeter (cm) is a unit of length in the metric system, equal to one hundredth of a meter. Is there anything specific you would like to know or ask about centimeters?
Input: cn, Output: Hello! How can I assist you today?
Input: co, Output: Hello! How can I assist you today?

Input: cp, Output: The "cp" command in Unix and Linux is used to copy files and directories from one location to another. Would you like to know more about how to use the "cp" command or do you have a specific question about it?
Input: cq, Output: Hello! How can I assist you today?
Input: cr, Output: It seems like you only typed "cr". How can I assist you further?
Input: cs, Output: It looks like you entered "cs." How can I assist you today?
Input: ct, Output: It seems like you've entered "ct". How can I assist you further with this?
Input: cu, Output: It seems like you entered "cu." Is there something specific you need assistance with related to that abbreviation or term? Feel free to provide more context so I can assist you more effectively.
Input: cv, Output: Do you need help writing or editing your CV (Curriculum Vitae)? If so, please let me know how I can assist you!
Input: cw, Output: I'm here to help! How can I assist you today?
Input: cx, Output: How can I assist you today?
Input: cy, Output: Hello! How can I assist you today?
Input: cz, Output: Hello! How can I assist

you today?
Input: cA, Output: Hello! How can I assist you today?
Input: cB, Output: It seems like you've entered "cB". Is there something specific you would like help with regarding that?
Input: cC, Output: Hello! How can I assist you today?
Input: cD, Output: It seems like you've entered "cD." How can I assist you today?
Input: cE, Output: Hello! How can I assist you today?
Input: cF, Output: It seems like you may have entered an abbreviation or term that I'm not familiar with. Could you please provide more context or clarify what you mean by "cF"? I'd be happy to help once I have a better understanding.
Input: cG, Output: It seems like you entered "cG". Is there something specific you would like help with or any question you would like to ask? Feel free to provide more context or information so I can assist you better.
Input: cH, Output: Hello! How can I assist you today?
Input: cI, Output: It seems like you might have accidentally entered a random text. Is there anything I can help you with?
Input: cJ, Output: Hello! How can I assist

you today?
Input: cK, Output: It looks like you entered "cK." Can you please provide more context or let me know how I can assist you further?
Input: cL, Output: Hello! It looks like you've entered "cL." Is there something specific you need assistance with regarding this? Let me know how I can help you today!
Input: cM, Output: cM stands for "centimeter," which is a unit of length in the metric system. It is equal to one hundredth of a meter.
Input: cN, Output: It appears that "cN" is not a valid or recognized command. Is there something specific you need help with or would like to know more about? Feel free to ask any questions you may have!
Input: cO, Output: It looks like you may have accidentally typed "cO." How can I assist you today?
Input: cP, Output: cP could stand for several things depending on the context. Here are a few possibilities:

1. It could stand for "cP," which is an abbreviation for centipoise, a unit of viscosity commonly used in physics and engineering.

2. It could also stand for "CP," which could

refer to multiple things, such as:
- Control Panel
- Critical Path
- Child Protective Services

If you provide more context, I can offer more specific assistance.
Input: cQ, Output: It seems like you might have entered a random message. Is there something specific you need help with or a question you'd like to ask? Feel free to provide more context or details so I can assist you better.
Input: cR, Output: It seems like you may have accidentally entered "cR". Is there something specific you would like assistance with? Feel free to provide more information so I can better help you.
Input: cS, Output: It looks like you've entered "cS". Is there something specific you would like assistance with?
Input: cT, Output: It seems like you have entered "cT." Can you please provide more context or let me know how I can assist you further?
Input: cU, Output: It seems like you've entered "cU". How can I assist you today?
Input: cV, Output: It looks like you typed "cV." Is there something specific you would like assistance with related to this term or

abbreviation?
Input: cW, Output: It seems like you entered "cW" - is there something specific you would like assistance with? Feel free to ask any questions or provide more information.
Input: cX, Output: It looks like you've entered "cX." Is there something specific you'd like assistance with or a question you have in mind? Please feel free to share more details so I can help you effectively.
Input: cY, Output: It looks like you may have accidentally pressed the "Caps Lock" key. If you need any assistance, feel free to ask!
Input: cZ, Output: It looks like you've started typing something. How can I assist you today?
Input: c0, Output: It seems like you have entered an unfamiliar term or code. Can you please provide more context or clarify your question so that I can better assist you?
Input: c1, Output: How can I assist you today?
Input: c2, Output: It seems like you have entered "c2". How can I assist you further with this information?
Input: c3, Output: How can I assist you with c3?
Input: c4, Output: It seems like you have provided the notation for a move in chess.

"c4" represents moving the pawn from c2 to c4. If you have any specific questions or need guidance on chess moves or strategies, feel free to ask!
Input: c5, Output: Hello! How can I assist you today?
Input: c6, Output: It looks like you have entered a chess move notation. In the game of chess, "c6" refers to moving the pawn that starts on the c file forward two squares, from its starting position. Let me know if you have any specific questions about this move or if you need assistance with anything else.
Input: c7, Output: It seems like you've entered a chess move notation. In this case, "c7" typically refers to moving the pawn from the c-file to c7 on the chessboard. Is there anything specific you'd like to know or discuss about this move?
Input: c8, Output: It seems you've entered "c8." How can I assist you further with this?
Input: c9, Output: It seems like you've entered "c9." Is there something specific you need help with, or any information you'd like to know more about? Feel free to provide more details so I can assist you better.
Input: c!, Output: How can I assist you

today?
Input: c", Output: It looks like you have entered "c". How can I assist you today?
Input: c#, Output: Hello! How can I assist you with C# programming today?
Input: c$, Output: How can I assist you with the symbol "c$"?
Input: c%, Output: It seems like you might be trying to type a symbol or command related to programming or mathematics. If you can provide more context or clarify your question, I'll be happy to help you further.
Input: c&, Output: It seems like you may have started typing a sentence but didn't complete it. How can I assist you today?
Input: c', Output: It seems like you might have accidentally entered a single letter "c". Can you please provide more context or let me know how I can assist you further?
Input: c(, Output: It looks like you started typing a function in R, but it is incomplete. Is there something specific you need help with regarding the function or any other coding-related question?
Input: c), Output: Hello! How can I assist you today?
Input: c*, Output: It seems like you might have started typing something but only entered "c*". Was there something you wanted to ask or discuss? How can I assist you

today?
Input: c+, Output: It seems like you accidentally inputted just "c+". Was there something specific you needed help with or a question you wanted to ask related to C programming?
Input: c,, Output: It seems like your message got cut off. How can I help you today?
Input: c-, Output: It looks like you've entered "c-." Is there something specific you need help with related to C programming or any other topic that starts with the letter "c"? Feel free to provide more information so I can assist you better.
Input: c., Output: I'm here to help! What do you need assistance with today?
Input: c/, Output: It seems like your message got cut off. How can I assist you today?
Input: c:, Output: Hello! How can I assist you today?
Input: c;, Output: Hello! How can I assist you today?
Input: c<, Output: It looks like you entered the letter "c<" without any context. Is there something specific you need help with or any question I can assist you with? Just let me know!
Input: c=, Output: It seems like you might

be trying to input a mathematical equation or variable assignment. Please provide more details or context so I can better understand how to assist you.
Input: c>, Output: It seems like you have entered "c>". Is there something specific you would like assistance with or a question you have in mind? Feel free to ask, and I'll do my best to help!
Input: c?, Output: It seems like you entered just the letter "c." How can I assist you further?
Input: c@, Output: Hello! How can I help you today?
Input: c[, Output: It looks like your message got cut off. How can I assist you today?
Input: c\, Output: It looks like you entered the letter "c". Can you please provide more context or let me know how I can assist you further?
Input: c], Output: It looks like you've entered a symbol. How can I assist you today?
Input: c^, Output: It looks like you just typed "c^". Is there a specific question or topic you need help with related to the letter "c" or something else? Feel free to provide more context so I can assist you better.

Input: c_, Output: Hello! It seems like you entered "c_". How can I assist you today?
Input: c`, Output: Hello! How can I assist you today?
Input: c{, Output: It seems like you entered a random character "{". How can I assist you today?
Input: c|, Output: Hello! It looks like your message got cut off. How can I assist you today?
Input: c}, Output: Hello! How can I assist you today?
Input: c~, Output: Hello! It looks like you entered an incomplete message. How can I assist you today?
Input: c , Output: It seems like you might have entered just a single letter "c." Can you please provide more information or let me know how I can assist you further?
Input: da, Output: Hello! How can I assist you today?
Input: db, Output: It seems like you may have entered an abbreviation or acronym. Can you please provide more context or clarify what you would like assistance with regarding "db"?
Input: dc, Output: It looks like you've entered "dc." Is there something specific you need help with? Feel free to ask any questions or let me know how I can assist

you today.
Input: dd, Output: Hello! How can I assist you today?
Input: de, Output: Hello! How can I assist you today?
Input: df, Output: It seems like you are looking for information related to disk space usage on a system. The "df" command in a terminal is used to display disk space usage on Linux and Unix-based systems. When running the "df" command without any options, it will display information about the disk space usage for all mounted filesystems in a human-readable format.

If you need more specific help or have any questions related to disk space usage or any other topic, feel free to ask!
Input: dg, Output: Hello! How can I assist you today?
Input: dh, Output: Hello! How can I assist you today?
Input: di, Output: It seems like your message got cut off. How can I assist you today?
Input: dj, Output: Hello! How can I assist you today?
Input: dk, Output: It seems like you may have entered some random letters. If you have any questions or need assistance, feel

free to ask!
Input: dl, Output: It seems like you have entered "dl." Could you please provide more context or details so I can better understand how to assist you?
Input: dm, Output: Please provide more information or let me know how I can assist you further.
Input: dn, Output: It seems like you may have entered an incomplete message. How can I assist you today?
Input: do, Output: Hello! How can I assist you today?
Input: dp, Output: It seems like you might have typed "dp" by mistake. Can I help you with something else?
Input: dq, Output: It looks like you entered "dq." How can I assist you today?
Input: dr, Output: I'm here to help! How can I assist you today?
Input: ds, Output: Hello! How can I assist you today?
Input: dt, Output: It seems like you may have entered "dt" as a short form or abbreviation. Could you please provide me with more context or clarify what you need help with in order for me to assist you better?
Input: du, Output: "du" is a command in Unix and Unix-like operating systems that

displays the amount of disk space used by files and directories. It stands for "disk usage." If you have any specific questions or need help regarding the "du" command, feel free to ask!
Input: dv, Output: It seems like you typed "dv." How can I assist you today?
Input: dw, Output: It seems like you only typed "dw". Is there something specific you would like help with? Feel free to ask any questions or provide more details so I can assist you better.
Input: dx, Output: It appears that you have typed "dx." Would you like assistance with anything specific related to "dx," such as mathematical differentiation, physics, or something else entirely? Please provide more information so I can assist you more effectively.
Input: dy, Output: Hello! It seems like you may have entered "dy" as a message. How can I assist you today?
Input: dz, Output: It seems like you entered "dz". Can you please provide more information or let me know how I can assist you?
Input: dA, Output: Hello! Did you have a question or need assistance with something today?
Input: dB, Output: In the context of sound

and acoustics, dB stands for decibels. Decibels are a unit used to measure the intensity or level of sound. It is a logarithmic scale that expresses the ratio of a value to a reference level. It is commonly used to quantify sound levels, such as in describing the loudness of music, noise levels, or the sensitivity of microphones and speakers. The abbreviation dB is often used as shorthand when referring to sound levels or measuring equipment.
Input: dC, Output: It seems like you have entered "dC." Would you like to ask me a question or provide more information so I can better assist you?
Input: dD, Output: It seems like you inputted "dD." How can I assist you today?
Input: dE, Output: It seems like you have entered "dE." How can I assist you further with this term?
Input: dF, Output: It seems like you've entered "dF." Can you please provide more context or clarify what you need help with?
Input: dG, Output: It seems like you entered "dG." Is there something specific you would like help with or a question you have in mind? Feel free to provide more information so I can assist you better.
Input: dH, Output: It looks like you may have entered "dH" which could stand for

different things depending on the context. Can you please provide more information or clarify what you need help with?
Input: dI, Output: Hello! It seems like you may have typed something by mistake. How can I assist you today?
Input: dJ, Output: It looks like you've entered "dJ." Is there something specific you'd like assistance with?
Input: dK, Output: It seems like you may have entered "dK" as a message. How can I assist you today?
Input: dL, Output: It seems like you may have entered a partial term or abbreviation. Could you please provide more context or information so I can better understand how to assist you?
Input: dM, Output: It looks like you've typed "dM." Is there something specific you'd like help with related to that? Let me know how I can assist you!
Input: dN, Output: It looks like you may have entered "dN." Is there something specific you would like assistance with or a question you have in mind? Feel free to provide more information so I can better assist you.
Input: dO, Output: It seems like you might have typed something by mistake. How can I assist you today?

Input: dP, Output: It looks like you may have entered a mathematical expression or abbreviation "dP". Can you please provide more context or clarify your question so I can better assist you?
Input: dQ, Output: It looks like you've entered "dQ." Can you please provide more context or clarify your question so I can better assist you?
Input: dR, Output: It looks like you may have mistyped "dR." Is there something specific you need help with or a question you'd like to ask?
Input: dS, Output: It seems like you entered "dS." Is there something specific you need help with regarding this notation or topic? Feel free to provide more context so I can assist you better.
Input: dT, Output: It seems like you might be asking about a change in temperature. In physics, "ΔT" usually represents a change in temperature. If you have a specific question or topic in mind related to temperature change, please feel free to provide more details so I can assist you better.
Input: dU, Output: It looks like you've entered "dU". Is there something specific you need help with or would like to know more about? Feel free to ask!
Input: dV, Output: It seems like you've

entered "dV." Is there something specific you need help with or a question you have related to "dV"? Please provide more context so I can assist you more effectively.
Input: dW, Output: It seems like you provided the term "dW". Would you like assistance with a specific topic or clarification on what "dW" refers to?
Input: dX, Output: It seems like you entered "dX". Could you please provide more context or clarify what you are looking for help with?
Input: dY, Output: Hello! How can I assist you today?
Input: dZ, Output: It looks like you have entered "dZ." Is there something specific you would like assistance with? Feel free to ask any questions you have.
Input: d0, Output: It seems like you might have typed an incomplete or incorrect phrase. Can you please provide more context or let me know how I can assist you today?
Input: d1, Output: How can I assist you today?
Input: d2, Output: It seems like you have entered the code "d2". If you have any questions or need assistance related to this code or anything else, feel free to ask!
Input: d3, Output: It seems like you have entered "d3." Is there something specific

you'd like to know or ask about related to "d3"? Please provide more context so I can assist you better.
Input: d4, Output: It looks like you've entered a chess notation for the move "d4." Is there anything specific you would like to know or discuss related to this move or chess in general?
Input: d5, Output: It seems like you have inputted a chess notation for moving a pawn to the square d5 on the board. Is there anything specific you would like assistance with regarding this move?
Input: d6, Output: Rolling a standard six-sided die...

You rolled a 6!
Input: d7, Output: It seems like you have entered the move "d7." This typically refers to moving the pawn from d7 to d5 in a game of chess. Is there anything specific you would like to know or discuss regarding this move?
Input: d8, Output: It looks like you entered "d8." Is there something specific you would like assistance with related to "d8"? Please provide more information so I can help you better.
Input: d9, Output: It seems like you entered "d9". Was there anything specific you needed

help with or would you like me to provide information on a particular topic? Feel free to ask any questions you may have!
Input: d!, Output: Hello! How can I assist you today?
Input: d", Output: Hello! It looks like you may have entered a letter by mistake. Is there something you need assistance with today?
Input: d#, Output: It looks like you entered a character followed by the symbol "#. Can you please provide more context or let me know how I can assist you further?
Input: d$, Output: Hello! How can I assist you today?
Input: d%, Output: It looks like you may have mistyped something. Can you please provide more context or let me know how I can assist you?
Input: d&, Output: It seems like there might have been a typo in your message. Could you please provide more context or clarify how I can assist you further?
Input: d', Output: It looks like you entered a single letter "d." Is there something specific you would like assistance with or a question you have in mind? Feel free to provide more details so I can assist you better.
Input: d(, Output: It looks like your

message got cut off. How can I assist you today?
Input: d), Output: It seems like you entered the letter "d." How can I assist you further?
Input: d*, Output: Hello! It looks like you entered "d*". How can I assist you today?
Input: d+, Output: It seems like you may have entered an incomplete equation. How can I assist you further?
Input: d,, Output: Hello! It seems like you entered the letter "d." How can I assist you today?
Input: d-, Output: It looks like your message is incomplete. How can I assist you further?
Input: d., Output: It seems like you only entered a single letter "d." Could you please provide more context or let me know how I can assist you further?
Input: d/, Output: It looks like you typed "d/". Is there something I can help you with?
Input: d:, Output: How can I assist you today?
Input: d;, Output: It seems like you only entered the letter "d;". Is there something specific you would like assistance with? Feel free to ask any question or let me know how I can help you.

Input: d<, Output: It looks like your message got cut off. How can I assist you today?
Input: d=, Output: It seems like you entered "d=" without providing any context or information. How can I assist you further?
Input: d>, Output: It looks like you may have entered a partial command or an incomplete sentence. How can I assist you further?
Input: d?, Output: Hello! How can I assist you today?
Input: d@, Output: Hello! How can I assist you today?
Input: d[, Output: It seems like you might have made a typo. Is there something I can help you with?
Input: d\, Output: It seems like you've entered a single letter "d". How can I assist you further?
Input: d], Output: It looks like you may have entered a character or text that I don't understand. Could you please provide more information or clarify your request so I can assist you better?
Input: d^, Output: It seems like your message was cut off. Can you please provide more context or clarify what you need help with?
Input: d_, Output: Hello! It seems like your

message is incomplete. How can I assist you today?
Input: d`, Output: Hello! It seems like you entered a single character "d`. Is there anything specific you would like assistance with today?
Input: d{, Output: It looks like you may have accidentally typed "d{" in your message. Is there something specific you need help with? Feel free to ask your question or provide more context so I can assist you better.
Input: d|, Output: It looks like your message got cut off. How can I assist you today?
Input: d}, Output: It looks like you've entered a symbol: "d}". Can you please provide more context or let me know how I can assist you today?
Input: d~, Output: Hello! It seems like you entered a symbol "~". How can I assist you today?
Input: d , Output: How can I assist you today?
Input: ea, Output: Hello! How can I assist you today?
Input: eb, Output: Hello! How can I assist you today?
Input: ec, Output: It seems like you entered "ec". How can I assist you today?

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Input: ed, Output: Hello! How can I assist
you today?
Input: ee, Output: Hello! How can I assist
you today?
Input: ef, Output: Hello! How can I assist
you today?
Input: eg, Output: It seems like you entered
"eg." Can you provide more context or
details so I can better understand how I can
assist you?
Input: eh, Output: Hello! How can I help you
today?
Input: ei, Output: Hello! How can I assist
you today?
Input: ej, Output: Hello! How can I assist
you today?
Input: ek, Output: Hello! How can I assist
you today?
Input: el, Output: Hello! How can I assist
you today?
Input: em, Output: It looks like you may
have accidentally entered 'em.' Is there a
specific question you have or something
you'd like help with? Feel free to provide
more information so I can assist you better.
Input: en, Output: Hello! How can I assist
you today?
Input: eo, Output: Hello! It looks like
you've typed "eo." How can I assist you
today?
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Input: ep, Output: Hello! How can I assist you today?
Input: eq, Output: It seems like you may have entered "eq" as a mistakenly short message. How can I assist you further with this abbreviation or term?
Input: er, Output: Hello! How can I assist you today?
Input: es, Output: Hola, ¿en qué puedo ayudarte hoy?
Input: et, Output: Hello! How can I assist you today?
Input: eu, Output: Olá! Como posso te ajudar hoje?
Input: ev, Output: It seems like you have entered "ev." How can I assist you further with this term or is there something else you need help with?
Input: ew, Output: I'm here to help! What can I assist you with today?
Input: ex, Output: It seems like you entered "ex." How can I assist you further with this?
Input: ey, Output: Hello! How can I assist you today?
Input: ez, Output: It looks like you're referring to something being easy. Is there anything specific you need help with?
Input: eA, Output: It seems like you might have made a typo. If you have a question or

need help with something, feel free to ask!
Input: eB, Output: It seems like you may have entered an abbreviation or a partial phrase. Could you please provide more context or clarify what you need help with?
Input: eC, Output: Hello! It seems like you've entered "eC." How can I assist you today with this term or any other questions you may have?
Input: eD, Output: Hello! How can I assist you today?
Input: eE, Output: Hello! It seems like you may have typed "eE" by mistake. How can I assist you today?
Input: eF, Output: It seems like you've entered "eF". Is there anything specific you need help with regarding this input?
Input: eG, Output: It looks like you entered "eG." Is there something specific you need help with or would like to know more about? Feel free to ask any questions you may have.
Input: eH, Output: Hello! How can I assist you today?
Input: eI, Output: It looks like you may have accidentally entered a random string of characters. If you have a question or need assistance with something, feel free to let me know!
Input: eJ, Output: It looks like you've entered "eJ." Was there something specific

you needed help with or a question I can assist you with?
Input: eK, Output: Hello! How can I assist you today?
Input: eL, Output: Hello! How can I assist you today?
Input: eM, Output: It looks like you may have entered a random phrase or made a typo. If you need assistance with something, feel free to let me know how I can help you!
Input: eN, Output: Hello! How can I assist you today?
Input: eO, Output: Hello! How can I assist you today?
Input: eP, Output: It seems like you've entered "eP." Is there anything specific you would like help with or discuss? Feel free to ask any questions or share your thoughts.
Input: eQ, Output: It looks like you've entered "eQ." Is there anything specific you'd like assistance with or a question you have? Feel free to provide more details so I can help you effectively.
Input: eR, Output: Hello! It seems like you've entered "eR." Is there anything specific you need assistance with today?
Input: eS, Output: Hello! How can I help you today?
Input: eT, Output: Hello! How can I assist you today?

Input: eU, Output: Hello! How can I assist you today?
Input: eV, Output: 1 electronvolt (eV) is defined as the amount of energy gained or lost by the charge of a single electron moved across an electric potential difference of 1 volt. It is equal to approximately 1.6 x 10^-19 joules.
Input: eW, Output: Hello! It seems like you might have written "we" backwards. How can I assist you today?
Input: eX, Output: "eX" usually refers to the mathematical constant "e" raised to the power of "X", where "e" is approximately equal to 2.71828. This is commonly used in exponential functions and growth calculations.

Is there something specific you would like to know or ask about related to "eX"?
Input: eY, Output: Hello! How can I assist you today?
Input: eZ, Output: Hello! How can I assist you today?
Input: e0, Output: Hello! How can I assist you today?
Input: e1, Output: Hello! How can I assist you today?
Input: e2, Output: It seems like you entered "e2". How can I assist you further with this

information?
Input: e3, Output: It seems like you may be referring to a specific topic or concept. Could you please provide more context or clarify your question so I can better assist you?
Input: e4, Output: That move is often played as the first move in a game of chess. It controls the center, opens lines for pieces to develop, and allows the queen and bishop to come out. Do you have any specific questions about this move or anything else related to chess?
Input: e5, Output: It looks like you have entered the move "e5" which is a common opening move in chess. This move typically involves moving the pawn in front of the king two spaces forward. Is there anything specific you would like help with related to this move or chess in general?
Input: e6, Output: It seems like you might be referring to a specific square on a chessboard. Is there anything else you would like to know or discuss regarding chess or any other topic?
Input: e7, Output: It seems like you've entered a chess move. In algebraic notation, "e7" typically refers to moving the pawn in front of the king two squares forward in the opening of a chess game. Is there anything

specific you'd like to know or discuss about the move "e7"?
Input: e8, Output: It seems like you've entered "e8", could you please provide more context or let me know how I can assist you today?
Input: e9, Output: It seems like you've entered "e9." Could you provide me with more context or let me know how I can assist you today?
Input: e!, Output: Hello! How can I assist you today?
Input: e", Output: Hello! It looks like you only entered a single letter "e". Can you provide more context or ask a question so I can better assist you?
Input: e#, Output: It seems like your message got cut off. How can I assist you today?
Input: e$, Output: Hello! It seems like there might have been a typo in your message. How can I assist you today?
Input: e%, Output: It looks like you have entered a symbol followed by a percentage sign. Is there something specific you need help with or a question you would like to ask? Feel free to provide more details so I can assist you better.
Input: e&, Output: It seems like your message may have been cut off. Can you

please provide more context or let me know how I can assist you?
Input: e', Output: It looks like you've typed a single letter "e". How can I assist you further?
Input: e(, Output: It looks like you may have entered a mistake or a typo. Is there something I can help you with?
Input: e), Output: It looks like you've entered "e)". Is there something specific you would like assistance with? How can I help you today?
Input: e*, Output: It appears that there might have been a typo in your message. How can I assist you today?
Input: e+, Output: It seems like you may have typed a symbol or command. Is there something specific you need help with?
Input: e,, Output: It looks like you pressed the "e" key. How can I assist you today?
Input: e-, Output: It seems like your message got cut off. How can I assist you today?
Input: e., Output: Hello! How can I assist you today?
Input: e/, Output: It looks like you just entered "e/". How can I assist you today?
Input: e:, Output: Hello! How can I assist you today?
Input: e;, Output: Hello! How can I assist

you today?
Input: e<, Output: It looks like you may have tried to enter a mathematical expression or equation starting with "e<". Can you please provide more information or clarify your question so I can better assist you?
Input: e=, Output: It looks like you might have started typing something but didn't complete it. Can you please provide more context or let me know how I can assist you?
Input: e>, Output: It looks like you may have entered a partial response or command. How can I assist you further?
Input: e?, Output: Hello! How can I assist you today?
Input: e@, Output: Hello! How can I assist you today?
Input: e[, Output: It looks like you may have accidentally entered a random character. Is there something I can help you with?
Input: e\, Output: Hello! It looks like you entered "e\". How can I assist you today?
Input: e], Output: It seems like you entered a random character or incomplete input. How can I assist you today?
Input: e^, Output: It looks like you have entered an incomplete mathematical expression. If you could provide more

context or clarification, I would be happy to help you further.
Input: e_, Output: Hello! It looks like you accidentally entered "e_". Is there something I can assist you with today?
Input: e`, Output: Hello! How can I assist you today?
Input: e{, Output: It looks like you may have entered a typo or incomplete message. Is there something I can help you with?
Input: e|, Output: It seems like your message got cut off. How can I assist you today?
Input: e}, Output: It looks like you have entered a random character. How can I assist you today?
Input: e~, Output: Hello! How can I assist you today?
Input: e , Output: Hello! It looks like you entered a single letter "e." Is there something specific you would like assistance with or a question you have in mind? Feel free to share, and I'll do my best to help you.
Input: fa, Output: Hello! How can I assist you today?
Input: fb, Output: It seems like you may be referring to Facebook, a popular social media platform. Is there anything specific you would like assistance with in relation

to Facebook?
Input: fc, Output: Hello! How can I assist you today?
Input: fd, Output: It seems like you entered "fd." Is there something specific you need help with or a question you'd like to ask? Feel free to provide me with more information so I can assist you better.
Input: fe, Output: It seems like your message got cut off. Can you please provide more information or let me know how I can assist you?
Input: ff, Output: Hello! How can I assist you today?
Input: fg, Output: It seems like you've entered "fg". Is there anything specific you need help with? Feel free to ask any questions you may have.
Input: fh, Output: Hello! How can I assist you today?
Input: fi, Output: Hello! How can I assist you today?
Input: fj, Output: Hello! How can I assist you today?
Input: fk, Output: I'm here to assist you. How can I help you today?
Input: fl, Output: It seems like you may have accidentally sent a partial message. How can I assist you today?
Input: fm, Output: Hello! How can I assist

you today?
Input: fn, Output: It seems like you entered "fn." Is there something specific you would like help with related to that term or abbreviation?
Input: fo, Output: Hello! How can I assist you today?
Input: fp, Output: It seems like you entered "fp." Is there anything specific you need help with or any questions you have? Feel free to ask!
Input: fq, Output: It seems like you've entered "fq." Is there something specific you need help with or a question you have? Feel free to ask anything, and I'll do my best to assist you!
Input: fr, Output: Hello! How can I assist you today?
Input: fs, Output: It seems like you may have entered an acronym "fs". Could you please provide more context or clarify what you are looking for assistance with?
Input: ft, Output: Hello! It looks like you typed "ft." Is there something specific you need help with?
Input: fu, Output: Hello! How can I help you today?
Input: fv, Output: It seems like you may have mistyped or provided incomplete information. Could you please provide more

details or let me know how I can assist you?
Input: fw, Output: It seems like you may have entered something by mistake. How can I assist you today?
Input: fx, Output: Hello! It seems like you entered "fx". Is there something specific you would like assistance with related to "fx"? Please provide more context or details so I can help you better.
Input: fy, Output: It seems like you may have entered "fy" as a text message abbreviation or typo. If you intended to ask a question or need assistance with something, please feel free to provide more information so I can help you better.
Input: fz, Output: It looks like you typed "fz." Do you need help with something specific related to that? Feel free to provide more information so I can assist you better.
Input: fA, Output: How can I assist you with "fA"?
Input: fB, Output: Hello! It seems like you might have entered something by mistake. If you need any help or have a question, feel free to ask.
Input: fC, Output: It looks like you just entered "fC". Is there something specific you would like assistance with or any questions you have? Feel free to ask, and

I'll do my best to help!
Input: fD, Output: Hello! How can I assist you today?
Input: fE, Output: Hello! How can I assist you today?
Input: fF, Output: Hello! How can I assist you today?
Input: fG, Output: Hello! It seems like you've entered "fG." How can I assist you today?
Input: fH, Output: Hello! How can I assist you today?
Input: fI, Output: It looks like you may have accidentally capitalized the letter "f" and the letter "I". Is there something specific you would like help with, or a question I can assist you with?
Input: fJ, Output: Hello! How can I assist you today?
Input: fK, Output: It seems like you've entered "fK". How can I assist you today?
Input: fL, Output: It looks like you entered "fL." How can I assist you with this?
Input: fM, Output: Hello! How can I assist you today?
Input: fN, Output: Hello! How can I assist you today?
Input: fO, Output: It seems like you may have mistyped. How can I assist you today?
Input: fP, Output: It seems like you entered

"fP." How can I assist you today?
Input: fQ, Output: It looks like you've entered "fQ." Is there anything specific you would like help with or a question you need assistance with? Feel free to share more details so I can assist you better.
Input: fR, Output: It looks like you've typed "fR". How can I assist you today?
Input: fS, Output: Hello! It seems like you entered "fS". How can I assist you today?
Input: fT, Output: Hello! How can I assist you today?
Input: fU, Output: Hello! How can I assist you today?
Input: fV, Output: It seems like you might have entered an incomplete phrase or command. How can I assist you today?
Input: fW, Output: Hello! How can I assist you today?
Input: fX, Output: Hello! How can I assist you today?
Input: fY, Output: Hello! It seems like you entered "fY." Is there something I can assist you with?
Input: fZ, Output: It appears that "fZ" does not seem to be a valid command or request. How can I assist you today?
Input: f0, Output: It seems like you have entered "f0." How can I assist you today?
Input: f1, Output: Formula 1 (F1) is a

popular international auto racing series featuring open-wheel, single-seater cars that compete in races around the world on various circuits. It is considered one of the highest classes of racing. Let me know if you would like more information on F1!
Input: f2, Output: How can I assist you with "f2"?
Input: f3, Output: It seems like you might be referring to the function key "F3" on a computer keyboard. Pressing this key can have different functions depending on the context, such as opening a search feature in some applications or refreshing a webpage in a web browser. If you have a specific question about using the F3 key, feel free to ask!
Input: f4, Output: It seems like you've entered "f4." How can I assist you today?
Input: f5, Output: It seems like you have entered "f5." Can you please provide me with more context or let me know how I can assist you further?
Input: f6, Output: It appears that you have entered "f6." How can I assist you further with this?
Input: f7, Output: How can I assist you with the move F7?
Input: f8, Output: It seems like you've entered "f8." If you can provide more

information or context, I'll be happy to try and assist you further.
Input: f9, Output: It looks like you've entered "f9." Is there something specific you need help with related to "f9"? Let me know how I can assist you!
Input: f!, Output: It looks like you entered "f!" Is there something specific you need assistance with? Feel free to ask any questions or let me know how I can help you.
Input: f", Output: Hello! It seems like you may have accidentally entered a random character. Is there something specific you need help with?
Input: f#, Output: Hello! How can I assist you with F# today?
Input: f$, Output: It looks like you've typed "f$". How can I assist you today?
Input: f%, Output: It looks like you might have entered a symbol or a part of a word. Is there something specific that you need help with? Feel free to provide more context or ask any questions you have.
Input: f&, Output: Hello! It looks like you typed "f&". How can I assist you today?
Input: f', Output: It looks like you may have just entered the symbol for the first derivative. If you have any specific questions or need assistance with calculus or any other topic, feel free to ask!

Input: f(, Output: Hello! It seems like you may have accidentally entered "f(." Is there a specific question or topic you need help with? Feel free to provide more details, and I'll do my best to assist you.
Input: f), Output: It looks like you entered "f)". How can I assist you further?
Input: f*, Output: It looks like you might have mistyped or not completed your message. Can I help you with something else?
Input: f+, Output: It seems like you might have mistyped something. Can you please provide more context or let me know how I can assist you further?
Input: f,, Output: It seems like you entered just the letter "f". How can I assist you further?
Input: f-, Output: It seems like your message got cut off. How can I assist you further with the letter "f-"?
Input: f., Output: Hello! How can I help you today?
Input: f/, Output: It seems like you may have started typing a command or a question. Please go ahead and let me know how I can assist you today!
Input: f:, Output: How can I assist you today?
Input: f;, Output: It seems like you may have entered a random string of characters.

Is there something specific you need help with? Feel free to ask any questions you may have.
Input: f<, Output: It seems like you might have started typing a question about something related to the letter "f." Would you like to ask a question or provide more context so I can help you better?
Input: f=, Output: It seems like you may have started writing a mathematical equation with the variable "f." How can I assist you with this equation?
Input: f>, Output: It seems like you only entered "f>". Can you provide more information or let me know how I can assist you further?
Input: f?, Output: How can I assist you today?
Input: f@, Output: Hello! How can I assist you today?
Input: f[, Output: It looks like you entered a partial word or some random characters. Can you please provide more context or let me know how I can assist you further?
Input: f\, Output: It looks like you may have accidentally entered "f." Is there something specific you would like help with or a question you have? Feel free to let me know how I can assist you.
Input: f], Output: It looks like you've

entered a random character. How can I assist you today?
Input: f^, Output: It seems like you might have accidentally pressed the "f" key. Is there something specific you would like help with?
Input: f_, Output: Hello! It looks like you've entered "f_". How can I assist you today?
Input: f`, Output: Hello! It looks like you've entered just one letter. How can I help you today?
Input: f{, Output: It looks like you've entered some random characters. Is there anything specific you need help with?
Input: f|, Output: It looks like your message got cut off. How can I assist you today?
Input: f}, Output: It seems like you may have entered a symbol or a typo. How can I assist you today?
Input: f~, Output: Hello! It seems like you entered the character "~". How can I assist you today?
Input: f , Output: It seems like you might have accidentally entered just the letter "f". Is there something specific you need help with or have a question about? Please feel free to provide more information so I can assist you better.

Input: ga, Output: Hello! How can I assist you today?
Input: gb, Output: It looks like you've entered "gb." Is there anything specific you need help with related to this abbreviation or term? Please provide more context so I can assist you more effectively.
Input: gc, Output: It seems like you might be referring to something related to biology or genetics. Could you provide more context so I can better understand how to assist you?
Input: gd, Output: Hello! How can I assist you today?
Input: ge, Output: It seems like you may have entered a partial word or phrase. Can you please provide more context or let me know how I can assist you today?
Input: gf, Output: Hello! How can I assist you today?
Input: gg, Output: Good game! If you need any assistance or have any questions, feel free to ask.
Input: gh, Output: Hello! How can I assist you today?
Input: gi, Output: It seems like your message might be cut off. Can you please provide more context or let me know how I can assist you with "gi"?
Input: gj, Output: Hello! How can I assist

you today?
Input: gk, Output: It seems like you entered "gk." Is there something specific you need help with? Feel free to ask me anything.
Input: gl, Output: It seems like you may have typed an incomplete message. Is there something I can assist you with?
Input: gm, Output: Good morning! How can I assist you today?
Input: gn, Output: Hello! How can I assist you today?
Input: go, Output: Hello! How can I assist you today?
Input: gp, Output: It looks like you may be asking about something related to a GP. Could you please provide more details to help me give you the information you need?
Input: gq, Output: I'm sorry, could you please provide me with more information or clarify your request so I can assist you better?
Input: gr, Output: It seems like you may have accidentally entered a random abbreviation. How can I assist you today?
Input: gs, Output: Hello! How can I assist you today?
Input: gt, Output: It seems like you may have entered an abbreviation or acronym. Could you please provide more context or let me know how I can assist you further?

Input: gu, Output: Hello! How can I assist you today?
Input: gv, Output: Hello! It seems like you entered "gv." How can I assist you today?
Input: gw, Output: Hello! How can I assist you today?
Input: gx, Output: Hello! It looks like you typed "gx". How can I assist you today?
Input: gy, Output: Hello! How can I help you today?
Input: gz, Output: Hello! It seems like you might be abbreviating "goodbye" to "gz," is there anything else you would like assistance with before you go?
Input: gA, Output: Hello! How can I assist you today?
Input: gB, Output: It seems like you might be referring to gigabytes (GB), a unit of digital information storage capacity. Is there something specific you would like to know or discuss about gigabytes?
Input: gC, Output: It seems like you've entered "gC." Is there something specific you would like help with or any question you have in mind? Feel free to provide more details or let me know how I can assist you today.
Input: gD, Output: Hello! How can I assist you today?
Input: gE, Output: Hello! How can I assist

you today?
Input: gF, Output: It looks like you entered "gF." Is there something specific you would like assistance with or any question you would like to ask? Feel free to provide more information so I can assist you better.
Input: gG, Output: Hello! How can I assist you today?
Input: gH, Output: Hello! How can I assist you today?
Input: gI, Output: Hello! It seems like you entered "gI." How can I assist you today?
Input: gJ, Output: It seems like you've entered "gJ". How can I assist you today?
Input: gK, Output: Hello! It looks like you've entered "gK." How can I assist you today?
Input: gL, Output: Hello! How can I assist you today?
Input: gM, Output: Good morning! How can I assist you today?
Input: gN, Output: Hello! How can I assist you today?
Input: gO, Output: Hello! How can I assist you today?
Input: gP, Output: It seems like you entered "gP." Is there something specific you need help with or any questions I can assist you with? Let me know how I can help!
Input: gQ, Output: It seems like you've

entered "gQ". Is there something specific you'd like help with or a question you have in mind? Feel free to let me know how I can assist you today.
Input: gR, Output: It seems like you may have entered a random string of characters. Is there something specific you would like assistance with related to "gR"?
Input: gS, Output: It looks like you entered "gS." Is there anything specific you need help with, or any questions you have? Feel free to provide more details so I can assist you better.
Input: gT, Output: It seems like you may have entered "gT" as a query. How can I assist you today?
Input: gU, Output: Hello! It seems like you may have mistyped something. How can I assist you today?
Input: gV, Output: It seems like you have entered "gV." Can you please provide more context or let me know how I can assist you?
Input: gW, Output: It seems like you have typed "gW." How can I assist you today?
Input: gX, Output: It seems like you have entered "gX." Is there anything specific you need help with or any question you have in mind? Feel free to ask, and I'll do my best to assist you.
Input: gY, Output: Hello! How can I assist

you today?
Input: gZ, Output: It looks like you entered "gZ". Is there something specific you need assistance with? Feel free to ask any questions you may have. I'm here to help!
Input: g0, Output: It looks like you've entered "g0." Is there anything specific you need help with or a question I can assist you with?
Input: g1, Output: How can I assist you today?
Input: g2, Output: It seems like you have entered "g2". Is there something specific you need help with regarding "g2"? Let me know how I can assist you further.
Input: g3, Output: It seems like you have entered "g3". Is there something specific you need help with related to "g3"?
Input: g4, Output: It seems like you entered "g4." How can I assist you today?
Input: g5, Output: It seems like you've provided me with the chess move "g5." If you have any specific questions about this move or the game of chess in general, feel free to ask!
Input: g6, Output: It looks like you've entered a chess move notation. "g6" refers to moving the pawn on the g-file two spaces forward. Let me know if you need help with anything related to chess or if you have any

other questions.
Input: g7, Output: It seems like you've entered a chess notation. "g7" refers to a square on the chessboard. Is there something specific you'd like to know or discuss about this move?
Input: g8, Output: It seems like you may have entered a chess move notation. In chess, "g8" typically refers to moving the black pawn from g7 to g8 and promoting it to a different piece like a queen, rook, bishop, or knight. Let me know if you have any specific questions or need assistance with anything related to chess.
Input: g9, Output: It seems like you have entered "g9." Is there something specific you would like help with, or do you have a question I can assist you with?
Input: g!, Output: Hello! How can I assist you today?
Input: g", Output: Hello! It looks like you typed "g" in your message. How can I assist you today?
Input: g#, Output: It seems like you entered a random character or symbol. How can I assist you today?
Input: g$, Output: Hello! How can I assist you today?
Input: g%, Output: It looks like you typed "g%" - how can I assist you today?

Input: g&, Output: Hello! It looks like you might have entered a typo. Is there something I can assist you with today?
Input: g', Output: Hello! It looks like you may have accidentally pressed a key. Is there something I can help you with today?
Input: g(, Output: It seems like you may have entered a partial statement. How can I assist you further?
Input: g), Output: It looks like you've entered "g)". How can I assist you today?
Input: g*, Output: It seems like you might have only entered the letter "g*". Is there anything specific you would like help with or any question I can assist you with? Feel free to provide more context or details so I can better assist you.
Input: g+, Output: It seems like you may have started to type something but didn't complete it. Is there something specific you need help with regarding "g+"? Feel free to provide more details so I can assist you better.
Input: g,, Output: It looks like there may have been a typo in your message. How can I assist you today?
Input: g-, Output: It looks like you may have typed the letter "g" but didn't complete your message. Is there something specific you need assistance with?

Input: g., Output: Hello! How can I assist you today?
Input: g/, Output: It looks like your message may have been cut off. How can I assist you today?
Input: g:, Output: Hello! How can I assist you today?
Input: g;, Output: It seems like you might have typed something by mistake. How can I assist you today?
Input: g<, Output: It looks like you may have started typing a message but didn't complete it. Can I help you with something?
Input: g=, Output: It seems like you have entered "g=" without any further information. Could you please provide more context or let me know how I can assist you?
Input: g>, Output: It looks like you may have entered a mistyped command or incomplete message. How can I assist you today?
Input: g?, Output: Hello! How can I assist you today?
Input: g@, Output: Hello! How can I assist you today?
Input: g[, Output: It seems like you accidentally typed "g[". How can I assist you today?
Input: g\, Output: Hello! It looks like you've inputted "g\". Is there something I

can assist you with?
Input: g], Output: Hello! How can I assist you today?
Input: g^, Output: It seems like your message is incomplete. Can you provide more information or clarify your question so I can assist you better?
Input: g_, Output: Hello! It looks like you may have entered just an underscore "_". Was there something specific you needed help with or a question you had in mind? Feel free to ask!
Input: g`, Output: Hello! It seems like you've entered a random character. How can I assist you today?
Input: g{, Output: Hello! It looks like you have entered a random string of characters. How can I assist you today?
Input: g|, Output: How can I assist you today?
Input: g}, Output: It seems like you may have entered a typo. If you have any questions or need assistance with anything, feel free to ask!
Input: g~, Output: Hello! It looks like you entered the character "~". Is there something specific you would like to know or ask about? Feel free to share and I'll do my best to assist you!
Input: g , Output: How can I assist you

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today?
Input: ha, Output: Hello! How can I assist
you today?
Input: hb, Output: Hello! How can I assist
you today?
Input: hc, Output: Hello! How can I assist
you today?
Input: hd, Output: Hello! How can I assist
you today?
Input: he, Output: Hello! How can I assist
you today?
Input: hf, Output: Hello! How can I assist
you today?
Input: hg, Output: Hello! How can I assist
you today?
Input: hh, Output: Hello! How can I assist
you today?
Input: hi, Output: Hello! How can I assist
you today?
Input: hj, Output: Hello! How can I assist
you today?
Input: hk, Output: Hello! How can I assist
you today?
Input: hl, Output: Hello! How can I assist
you today?
Input: hm, Output: Hello! How can I assist
you today?
Input: hn, Output: Hello! How can I assist
you today?
Input: ho, Output: Hello! How can I assist
```

you today?
Input: hp, Output: HP usually stands for "Hewlett-Packard," a multinational information technology company known for its computers, printers, and related products. Is there something specific you would like to know or need assistance with relating to HP?
Input: hq, Output: Hi there! How can I assist you today?
Input: hr, Output: It appears that you have entered "hr." Is there a specific HR-related question or topic that you would like assistance with? Please provide more details so I can better assist you.
Input: hs, Output: Hello! How can I assist you today?
Input: ht, Output: Hello! How can I assist you today?
Input: hu, Output: Hello! How can I assist you today?
Input: hv, Output: Hello! How can I assist you today?
Input: hw, Output: Hello! How can I assist you today?
Input: hx, Output: Hello! How can I assist you today?
Input: hy, Output: Hello! How can I assist you today?
Input: hz, Output: It looks like you entered

"hz." Could you please provide more context or let me know how I can assist you further?
Input: hA, Output: Hello! How can I assist you today?
Input: hB, Output: Hello! How can I assist you today?
Input: hC, Output: Hello! How can I assist you today?
Input: hD, Output: It seems like you may have entered "hD." Could you please provide more context or let me know how I can assist you further?
Input: hE, Output: Hello! How can I assist you today?
Input: hF, Output: Hello! How can I assist you today?
Input: hG, Output: Hello! How can I assist you today?
Input: hH, Output: Hello! How can I assist you today?
Input: hI, Output: Hello! How can I assist you today?
Input: hJ, Output: Hello! How can I assist you today?
Input: hK, Output: Hello! How can I assist you today?
Input: hL, Output: Hello! How can I assist you today?
Input: hM, Output: Hello! How can I assist you today?

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Input: hN, Output: Hello! How can I assist
you today?
Input: hO, Output: Hello! How can I assist
you today?
Input: hP, Output: Hello! How can I assist
you today?
Input: hQ, Output: It looks like you've
entered "hQ". Is there something I can help
you with or a question you have in mind?
Input: hR, Output: Hello! How can I assist
you today?
Input: hS, Output: Hello! How can I assist
you today?
Input: hT, Output: It looks like you entered
"hT". Is there something specific you need
assistance with?
Input: hU, Output: Hello! How can I assist
you today?
Input: hV, Output: Hello! How can I assist
you today?
Input: hW, Output: Hello! How can I assist
you today?
Input: hX, Output: Hello! How can I assist
you today?
Input: hY, Output: Hello! How can I assist
you today?
Input: hZ, Output: It seems like you've
entered "hZ". How can I assist you today?
Input: h0, Output: Hello! How can I assist
you today?
```

Input: h1, Output: Hello! How can I assist you today?
Input: h2, Output: It seems like you've entered "h2." How can I assist you with that?
Input: h3, Output: Hello! How can I help you today?
Input: h4, Output: It seems like you've inputted "h4." If you need assistance or have a question, feel free to let me know!
Input: h5, Output: Hello! How can I assist you today?
Input: h6, Output: Hello! How can I assist you today?
Input: h7, Output: It seems like you provided a chess coordinate "h7." Is there something specific you would like help with regarding this coordinate?
Input: h8, Output: It seems like you may have mistyped something. Can you please provide more context or clarify your message so I can better assist you?
Input: h9, Output: Hello! How can I assist you today?
Input: h!, Output: Hello! How can I assist you today?
Input: h", Output: Hello! It looks like you might have typed something by mistake. How can I assist you today?
Input: h#, Output: It looks like you may

have mistyped your message. Can you provide more details or let me know how I can assist you today?
Input: h$, Output: Hello! How can I assist you today?
Input: h%, Output: It seems like you input "h%". Is there something specific you need help with or a question I can assist you with?
Input: h&, Output: Hello! How can I assist you today?
Input: h', Output: Hello! How can I assist you today?
Input: h(, Output: It looks like you may have typed a letter "h" by mistake. Is there something specific you need help with?
Input: h), Output: It looks like you may have entered a single letter "h." Is there anything specific you need help with or any question you'd like me to assist you with? Just let me know how I can help!
Input: h*, Output: Hello! How can I assist you today?
Input: h+, Output: Hello! How can I assist you today?
Input: h,, Output: Hello! How can I help you today?
Input: h-, Output: Hello! How can I assist you today?
Input: h., Output: Hello! How can I assist

you today?
Input: h/, Output: Hello! It looks like you started typing something. How can I assist you today?
Input: h:, Output: Hello! How can I help you today?
Input: h;, Output: Hello! How can I assist you today?
Input: h<, Output: It seems like your message got cut off. Is there something specific I can help you with?
Input: h=, Output: It seems like you might have entered an incomplete question or statement. How can I assist you further?
Input: h>, Output: It looks like you may have started typing a message but it got cut off. How can I assist you today?
Input: h?, Output: Hello! How can I assist you today?
Input: h@, Output: Hello! How can I assist you today?
Input: h[, Output: It looks like you may have accidentally entered a text fragment or made a typo. How can I assist you today?
Input: h\, Output: Hello! It looks like you might have started typing a question or a message. How can I assist you today?
Input: h], Output: Hello! It seems like maybe you're trying to type something. How can I assist you today?

Input: h^, Output: It looks like you inputted "h^" without providing a specific context or continuation. How can I assist you today?
Input: h_, Output: Hello! How can I assist you today with the letter "h"?
Input: h`, Output: Hello! It seems like you might have accidentally typed a single character. How can I assist you today?
Input: h{, Output: Hello! It seems like you might have accidentally typed "h{" If you need help with anything specific, please feel free to ask.
Input: h|, Output: It seems like you just typed "h|". How can I assist you today?
Input: h}, Output: Hello! How can I assist you today?
Input: h~, Output: Hello! It looks like you may have accidentally entered a few characters. How can I assist you today?
Input: h , Output: Hello! How can I assist you today?
Input: ia, Output: Hello! How can I assist you today?
Input: ib, Output: Hello! How can I assist you today?
Input: ic, Output: Hello! How can I assist you today?
Input: id, Output: I'm sorry, could you please provide more context or clarify your

request?
Input: ie, Output: It looks like you have entered "ie." Can you please provide more context or let me know how I can assist you further?
Input: if, Output: Hello! It looks like you may have started typing a question or sentence. How can I assist you today?
Input: ig, Output: Hello! How can I assist you today?
Input: ih, Output: Hello! How can I assist you today?
Input: ii, Output: Hello! How can I assist you today?
Input: ij, Output: Hello! How can I assist you today?
Input: ik, Output: Hello! How can I assist you today?
Input: il, Output: Hello! How can I assist you today?
Input: im, Output: Hello! How can I assist you today?
Input: in, Output: Hello! How can I assist you today?
Input: io, Output: Hello! How can I assist you today?
Input: ip, Output: IP stands for internet protocol. It is a unique set of numbers assigned to a computer, server, or other networked device to identify it on a

network. IP addresses are used for communication between devices connected to the internet.
Input: iq, Output: Hi there! It looks like you entered "iq". Can you please provide more context or expand on what you're looking for so I can assist you better?
Input: ir, Output: It seems like you entered "ir." How can I assist you today?
Input: is, Output: It seems like your message was incomplete. Can you provide more information or let me know how I can assist you?
Input: it, Output: Hello! How can I assist you today?
Input: iu, Output: Hello! How can I assist you today?
Input: iv, Output: Hello! How can I assist you today?
Input: iw, Output: It looks like "iw" could be a typo. Could you provide more context or clarify what you are looking for assistance with?
Input: ix, Output: Hello! How can I assist you today?
Input: iy, Output: Hello! How can I assist you today?
Input: iz, Output: It seems like you may have entered a typo. Could you please provide more context or clarify your

question so I can assist you better?
Input: iA, Output: Hello! How can I assist you today?
Input: iB, Output: Hello! How can I assist you today?
Input: iC, Output: Hello! How can I assist you today?
Input: iD, Output: Hello! How can I assist you today?
Input: iE, Output: Hello! How can I assist you today?
Input: iF, Output: Hello! It seems like you started typing something but didn't finish. How can I assist you today?
Input: iG, Output: It appears you have entered "iG." How can I assist you further with this abbreviation?
Input: iH, Output: Hello! How can I assist you today?
Input: iI, Output: It looks like your message was cut off. How can I assist you today?
Input: iJ, Output: Hello! It seems like you entered "iJ". How can I assist you today?
Input: iK, Output: Hello! How can I assist you today?
Input: iL, Output: Hello! How can I assist you today?
Input: iM, Output: It seems like you may have typed something by mistake. How can I

assist you today?
Input: iN, Output: It looks like you've entered "iN". How can I assist you today?
Input: iO, Output: Hello! How can I assist you today?
Input: iP, Output: It seems you mentioned "iP." How can I assist you further with that?
Input: iQ, Output: "IQ" typically refers to intelligence quotient, a numerical measure of a person's intelligence. If you have any specific questions or need assistance with related topics, feel free to ask!
Input: iR, Output: It seems like you might have mistyped something. Is there anything I can help you with?
Input: iS, Output: Hello! How can I assist you today?
Input: iT, Output: Hello! How can I assist you today?
Input: iU, Output: Hello! How can I assist you today?
Input: iV, Output: Hello! It seems like you entered "iV." Is there anything specific you would like help with or any questions I can answer for you?
Input: iW, Output: It looks like you've entered "iW." Is there something specific you need help with or information you're looking for? Feel free to provide more

context or ask your question so I can assist you better.
Input: iX, Output: Hello! How can I assist you today?
Input: iY, Output: Hello! How can I assist you today?
Input: iZ, Output: It seems like you have entered "iZ." Is there something specific you would like assistance with or a question you would like to ask? Feel free to provide more information so I can better assist you.
Input: i0, Output: It seems like you entered "i0." Is there something specific you would like help with or a question you have? Feel free to ask, and I'll do my best to assist you.
Input: i1, Output: How can I assist you today?
Input: i2, Output: It seems like you have entered a mathematical expression ("i2"). Are you looking for the result of "i^2", where i is the imaginary unit? If so, the result is -1. Let me know if you need help with anything else.
Input: i3, Output: i3 refers to the i3 window manager, a highly configurable tiling window manager for Unix-based systems. It allows for efficient management of windows on the desktop by automatically arranging them in a non-overlapping tile layout. Users

can customize i3 through configuration files to tailor it to their workflow and preferences. If you have any specific questions or need assistance with i3, feel free to ask!
Input: i4, Output: It seems like you may have entered an incomplete or unclear request. How can I assist you today?
Input: i5, Output: It seems like you might be referring to an Intel Core i5 processor. Is there something specific you would like to know or discuss about i5 processors?
Input: i6, Output: Hello! How can I assist you today?
Input: i7, Output: It appears like you have entered "i7". Is there a specific information or assistance you need regarding an Intel Core i7 processor? Feel free to ask any questions you may have.
Input: i8, Output: It seems like you might be referring to the Intel Core i8 processor series. The i8 series does not currently exist; the latest Intel processors are part of the i9 series. If you have any other questions or need information on a different topic, feel free to ask!
Input: i9, Output: It seems like you're referring to the Intel Core i9 processor series, which are high-performance processors designed for demanding tasks such

as gaming, content creation, and other heavy workloads. The Intel Core i9 processors offer multiple cores and high clock speeds to handle multitasking and demanding applications. If you have any specific questions or need more information about the Intel Core i9 processors, feel free to ask!
Input: i!, Output: Hello! How can I help you today?
Input: i", Output: Hello! How can I assist you today?
Input: i#, Output: It looks like you've entered a symbol followed by a hashtag. Is there something specific you need help with or a question you have in mind? Please feel free to share, and I'll do my best to assist you.
Input: i$, Output: It seems like you entered a symbol before the dollar sign. If you have a specific question or need assistance with something, please let me know how I can help you.
Input: i%, Output: It looks like you may have entered a partial message. How can I assist you today?
Input: i&, Output: Hello! It seems like your message got cut off. How can I assist you today?
Input: i', Output: It looks like your message got cut off. How can I help you

today?
Input: i(, Output: It looks like you started typing something but did not complete your question or input. How can I assist you today?
Input: i), Output: Hello! How can I assist you today?
Input: i*, Output: It seems like you might have started typing a mathematical expression. How can I assist you with it?
Input: i+, Output: It looks like you may have started typing a mathematical expression but didn't finish it. Did you have a question or equation you needed help with?
Input: i,, Output: Hello! How can I assist you today?
Input: i-, Output: Hello! How can I assist you today?
Input: i., Output: Hello! How can I assist you today?
Input: i/, Output: Hello! How can I assist you today?
Input: i:, Output: Hello! How can I assist you today?
Input: i;, Output: It looks like you've entered a semicolon. Can I help you with something?
Input: i<, Output: It looks like your message was cut off. How can I assist you

today?
Input: i=, Output: It seems like you might have intended to enter a mathematical equation or expression after the "i=". If you provide me with more information, I'd be happy to help you with the calculation or any questions you have.
Input: i>, Output: It looks like you may have started typing a message or question, but it seems to be incomplete. How can I assist you today?
Input: i?, Output: Hello! How can I assist you today?
Input: i@, Output: Hello! How can I assist you today?
Input: i[, Output: It seems like you accidentally typed "i[". Did you have a question or need help with something? Feel free to let me know how I can assist you!
Input: i\, Output: Hello! It looks like your message got cut off. How can I assist you today?
Input: i], Output: Hello! How can I help you today?
Input: i^, Output: It looks like you've entered an incomplete expression "i^". Is there something specific you need help with regarding this expression or calculations involving imaginary numbers?
Input: i_, Output: How can I assist you

today?
Input: i`, Output: Hello! How can I assist you today?
Input: i{, Output: It looks like your message might have been cut off. Can you please provide more information or let me know how I can assist you?
Input: i|, Output: Hello! How can I assist you today?
Input: i}, Output: Hello! How can I assist you today?
Input: i~, Output: Hello! How can I assist you today?
Input: i , Output: Hello! How can I assist you today?
Input: ja, Output: Hallo! Wie kann ich Ihnen heute helfen?
Input: jb, Output: Hello! How can I assist you today?
Input: jc, Output: Hello! How can I assist you today?
Input: jd, Output: Hello! How can I assist you today?
Input: je, Output: Bonjour! Comment puis-je vous aider aujourd'hui?
Input: jf, Output: Hello! How can I assist you today?
Input: jg, Output: Hello! How can I assist you today?
Input: jh, Output: Hello! How can I assist

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you today?
Input: ji, Output: Hello! How can I assist
you today?
Input: jj, Output: Hello! How can I assist
you today?
Input: jk, Output: Hello! How can I assist
you today?
Input: jl, Output: Hello! How can I assist
you today?
Input: jm, Output: Hello! How can I assist
you today?
Input: jn, Output: Hello! How can I assist
you today?
Input: jo, Output: Hello! How can I assist
you today?
Input: jp, Output: Hello! How can I assist
you today?
Input: jq, Output: `jq` is a lightweight and
flexible command-line JSON processor. It
allows you to parse, extract, manipulate,
and filter JSON data in the terminal. With
`jq`, you can use a variety of functions and
operators to query and modify JSON objects.
It is commonly used in shell scripts and
pipelines for JSON data manipulation. Let me
know if you have any specific questions or
need help with `jq` commands.
Input: jr, Output: Hello! How can I assist
you today?
Input: js, Output: Hi there! How can I help
```

```
you with JavaScript today?
Input: jt, Output: Hello! How can I assist
you today?
Input: ju, Output: Hello! How can I assist
you today?
Input: jv, Output: Hello! How can I assist
you today?
Input: jw, Output: Hello! How can I assist
you today?
Input: jx, Output: It looks like you entered
"jx." Is there anything specific you need
help with? Feel free to ask any questions
you may have.
Input: jy, Output: Hello! How can I assist
you today?
Input: jz, Output: It seems like you entered
"jz." How can I assist you today?
Input: jA, Output: Hello! How can I assist
you today?
Input: jB, Output: Hello! How can I assist
you today?
Input: jC, Output: It seems like you entered
"jC." How can I assist you today?
```

The Boundaries of Privacy

February 2024

I created a simple program that can be given one or more directories. It searches through all of them, including their subdirectories, and when it finds an image (by “image” I mean a file with the extension .jpg, .jpeg, .png, .tif, or .tiff), it adds its path to the set of all images. Once the scan is complete, it selects only one image from them and displays it.

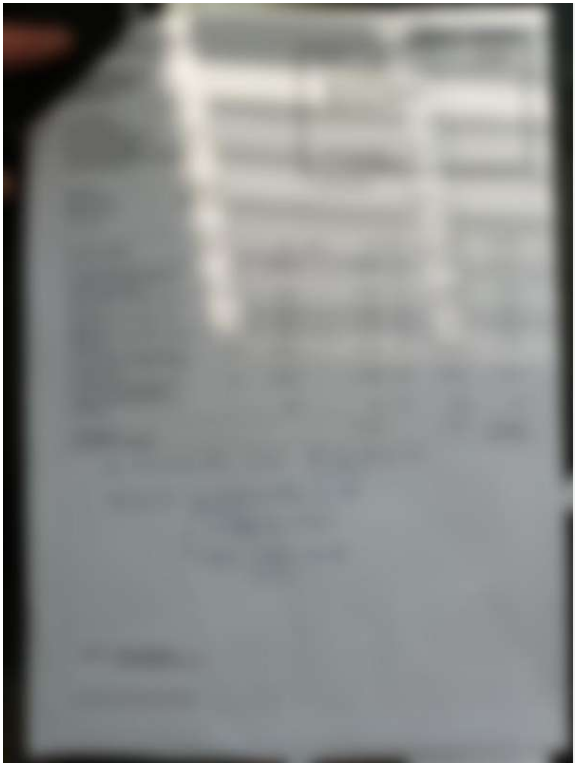
I then connected all the hard drives containing backups of the photos I’ve collected over the years to my computer (they now contain over 91,000 photos). I then set all the hard drives as the default directories from which the program selects images. For practical reasons, it was necessary to exclude certain directories from the selection, as some contained only program data, such as program icons. When I pressed the ENTER key, the program selected a random photograph from my life. When I pressed ENTER again, the program selected another photograph, and so on…

From the randomly selected images, I created several series that built on one another. Each series begins with a random image selection and continues selecting images at random until it encounters one I don’t want to publish. This last image in the series is displayed out of focus. I was curious to see which photos would cause a series to end and why. To my surprise, in most cases, it was concern for other people’s privacy that brought the series to a close. In other cases, it was photos of work

documents, other people's homes, and my own home, etc.

Through this project, I discovered just how blurred the boundaries of my privacy are—if there are any at all. At a certain point, however, I had to decide whether to publish a photograph or not. This choice, however, was usually quite complex and ambiguous.

Series 1:

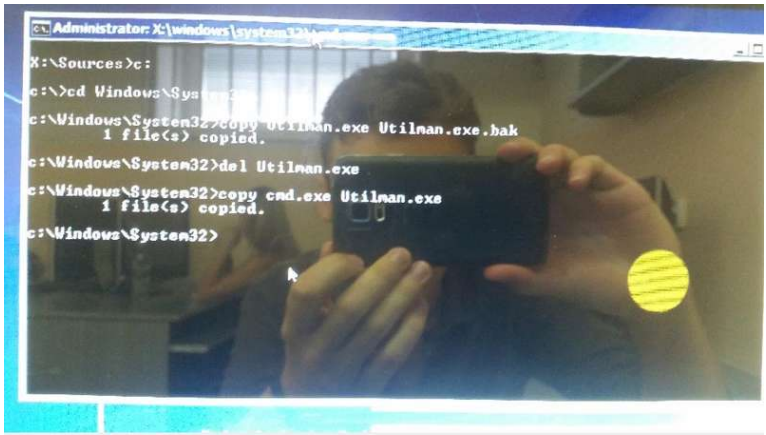


Series 2:

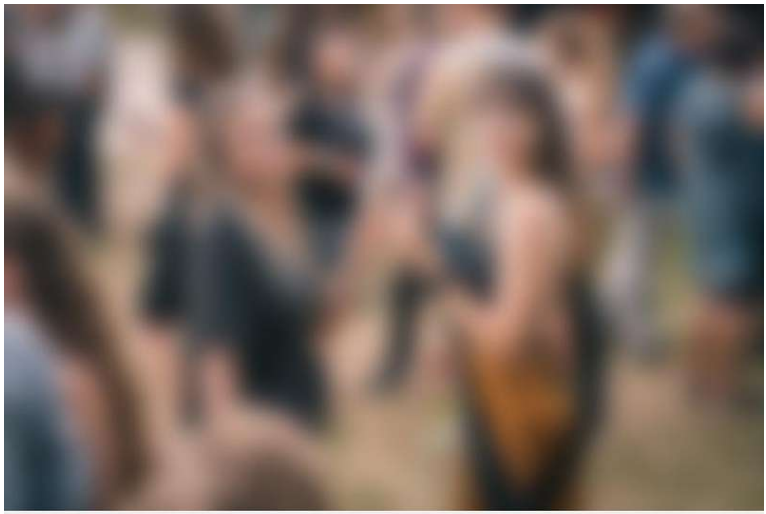
NICK WAPLINGTON

Nick Waplington k práci na Západním břehu Jordánu přistupoval se zápalem akademika a otevřeností vůči možným námětům. Poté, co prozkoumal řadu nápadů, začal v roce 2008 fotit jednu z nejrozporuplnějších a politicky nejvypjatějších izraelských komunit, osadníky na Západním břehu Jordánu. Waplington během své fotografické kariéry zásadně změnil svůj styl práce a přístup k povaze fotografovaných námětů. Fotografie ze série *Osada (Settlement)* jsou pořízeny velkoformátovým fotoaparátem a jsou zde instalovány jako série kontaktních snímků. Použitím vybavení a estetiky historického velkoformátového přístroje o velikosti 8 x 10 palců Waplington rozlišuje mezi svým projektem a technologií fotožurnalistiky, která v zobrazování Západního břehu Jordánu a jeho osadníků v dnešní době převládá. Naše osobní interpretace onoho poklidu a přesnosti jeho klasické verze fotografií závisí na tom, co my sami do interakce s dílem vneseme a na dynamice našeho osobního vkladu do autorem vybraných námětů.

-16 °C
0 °C

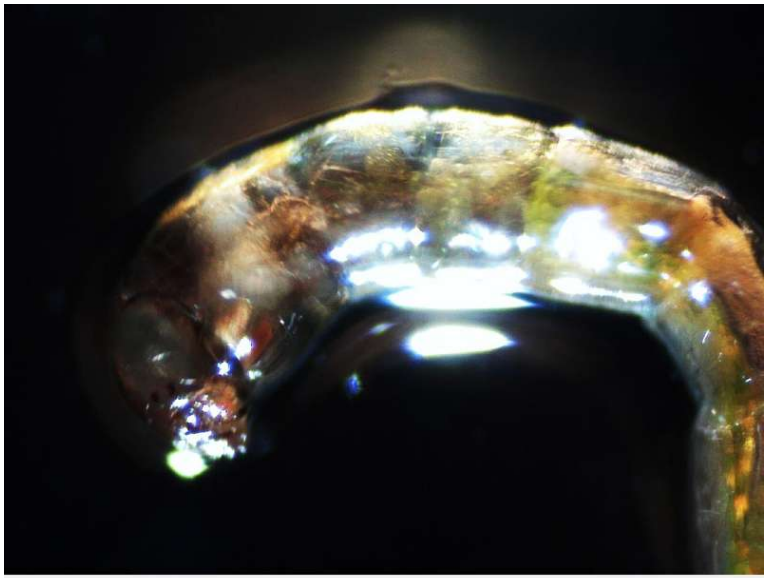

Administrator: X:\windows\system32\cmd.exe
X:\Sources>c:
c:\>cd Windows\System32
c:\Windows\System32>copy Utilman.exe Utilman.exe.bak
1 file(s) copied.
c:\Windows\System32>del Utilman.exe
c:\Windows\System32>copy cmd.exe Utilman.exe
1 file(s) copied.
c:\Windows\System32>

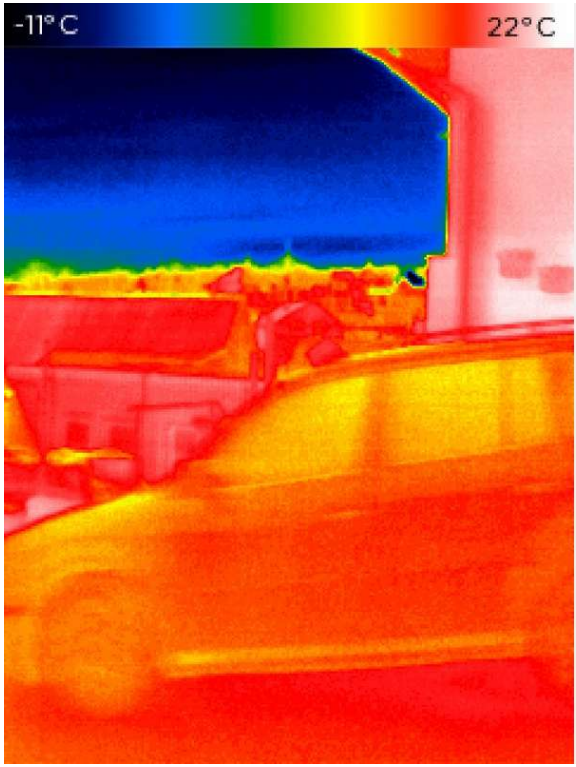
Koncentrace kyslíku stále stoupá.
Ten se vlivem slunečního záření
přeměňuje na ozón. Ozon chrání
planetu před ultrafialovým zářením
a díky němu se život z oceánu může
rozšířit i na souš a osídlit tak celou
planetu. Živočichům se vyvíjí páteř
a končetiny.



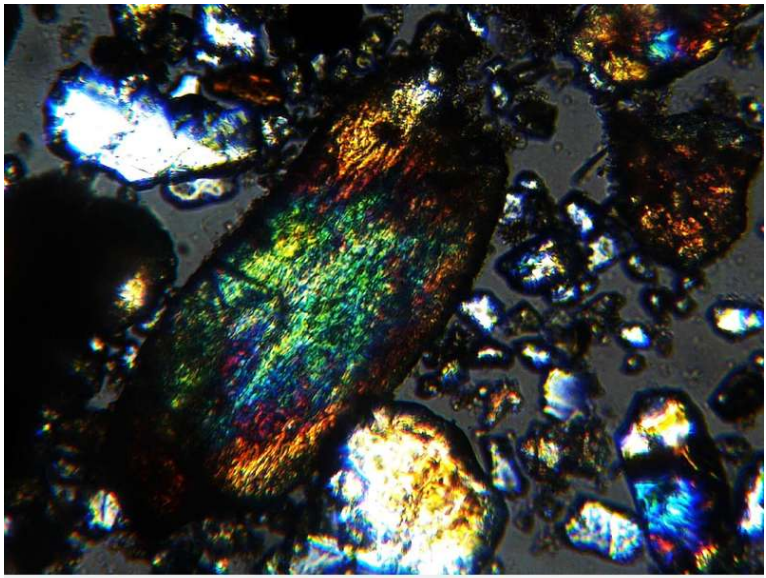
Series 3:

SMS
jízdenka
Zašlete SMS ve tvaru:
PMDP32M zóna P / 30 min. / 30 Kč
PMDP32H zóna P / 24 hod. / 70 Kč
PMDP32MV zóna V / 30 min. / 30 Kč
PMDP65MV zóna P+V / 65 min. / 38 Kč
na číslo
90206

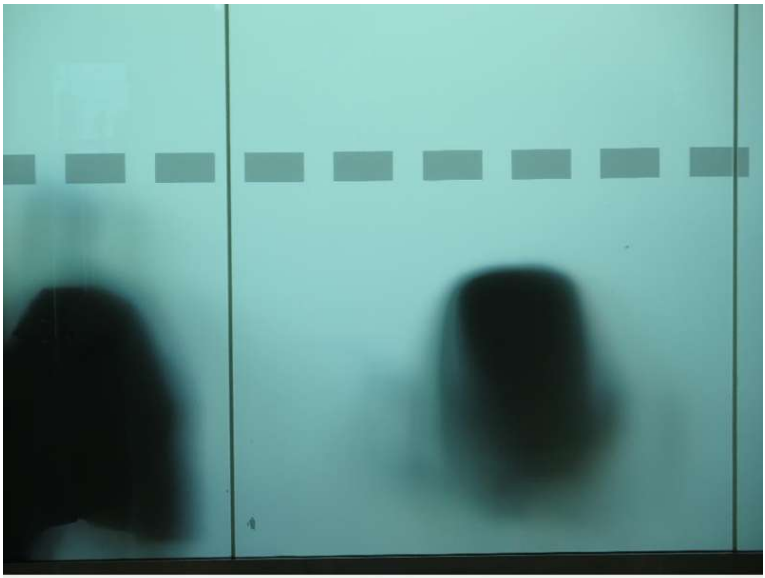


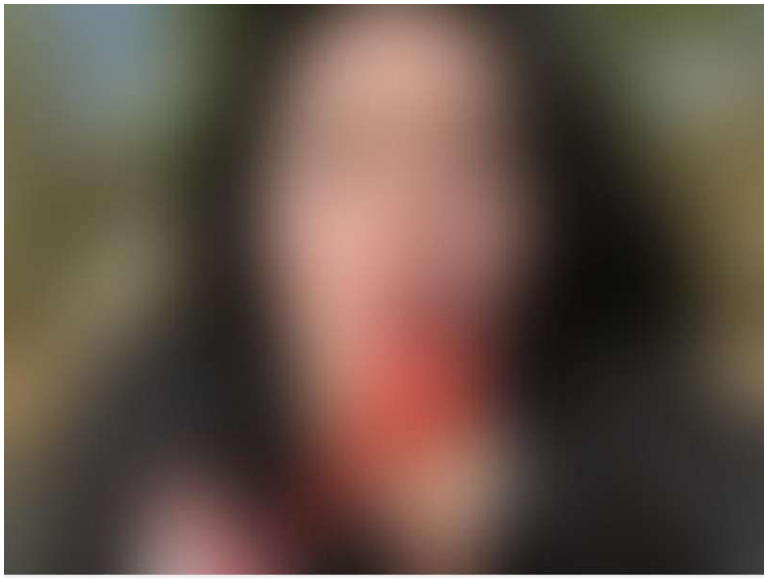

-11°C
22°C

Series 4:

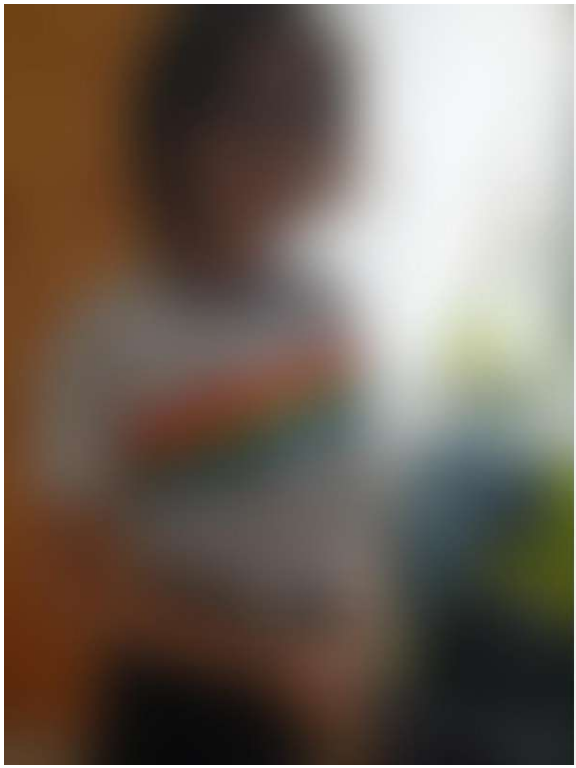


CONTENT
CONVERTER

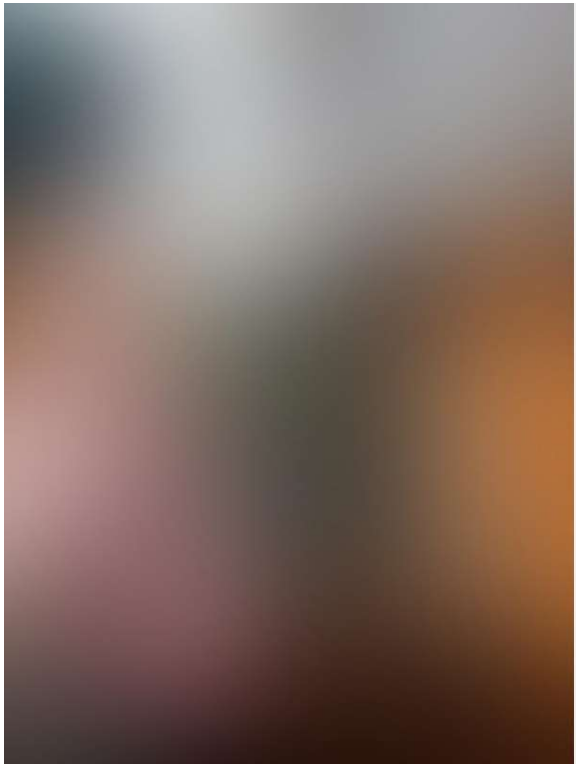




Series 5:

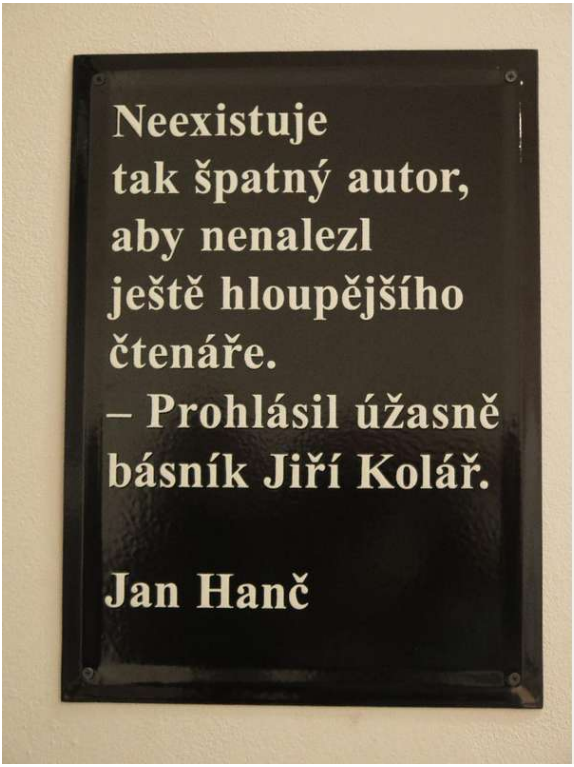


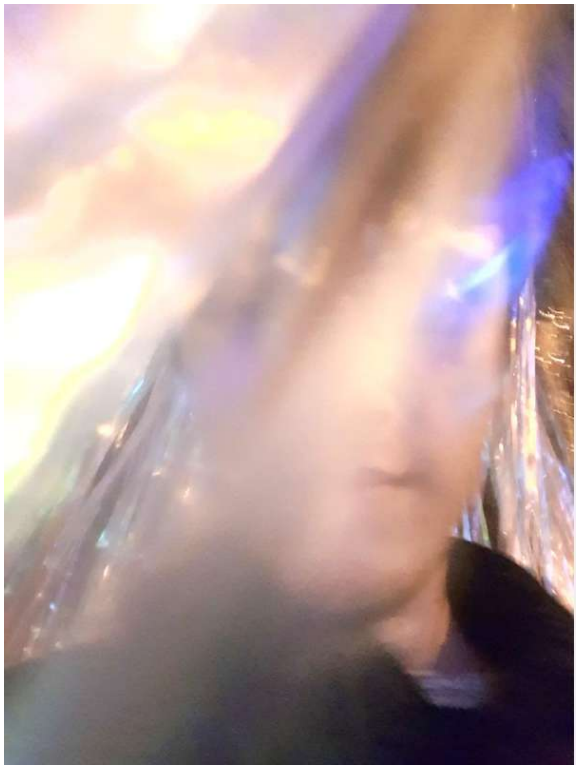
Series 6:



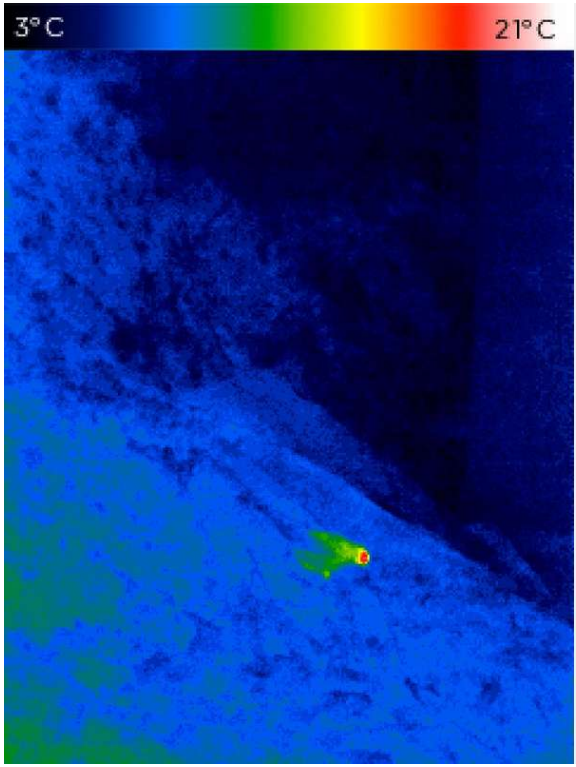
Series 7:

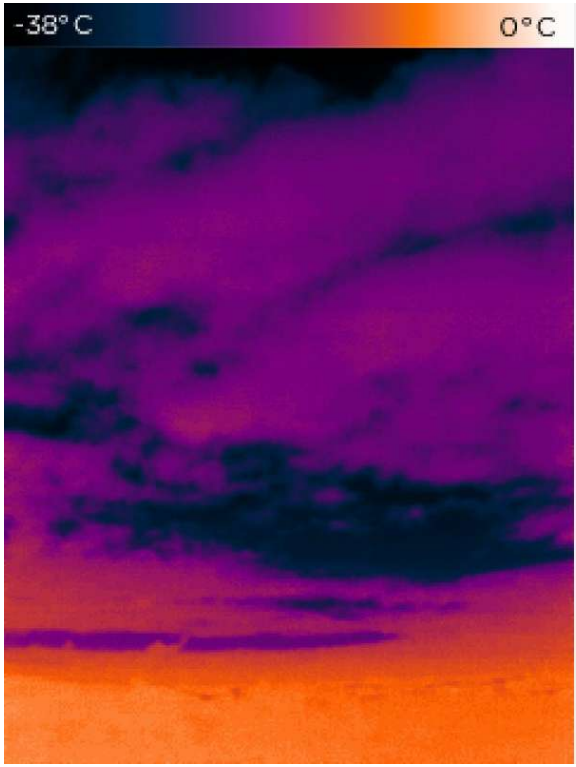
Series 8:


Neexistuje
tak špatný autor,
aby nenalezl
ještě hloupějšího
čtenáře.
– Prohlásil úžasně
básník Jiří Kolář.
Jan Hanč

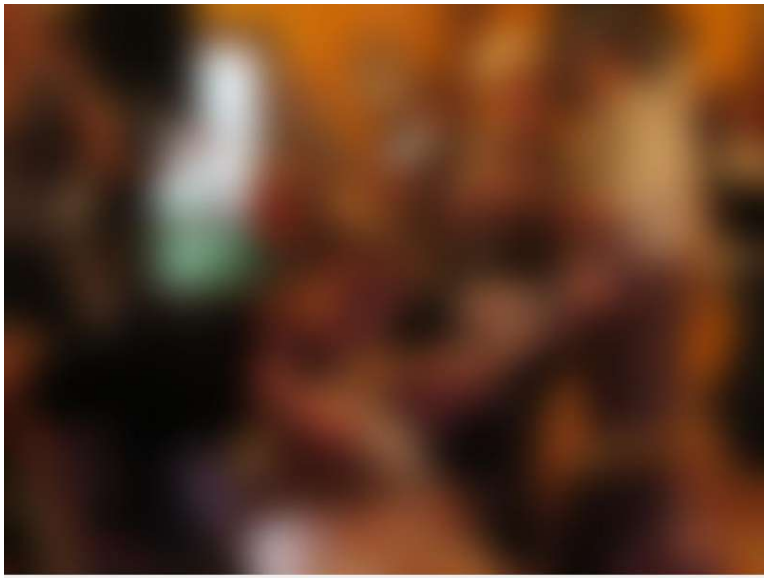


Series 9:

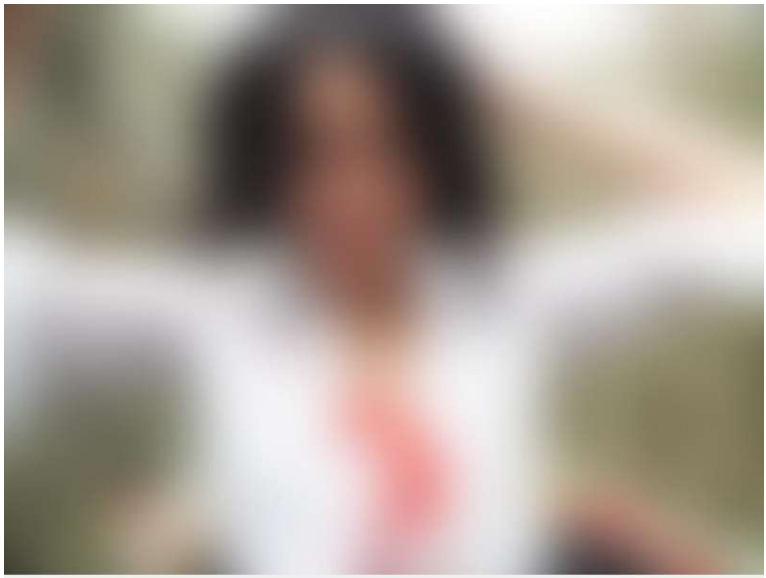

3° C
21° C


-38° C
0° C

BURN
SYSTEM



Series 10:



Source Code

The Python source code for this project is available here:

```
import os
import random
from pathlib import Path

def open_random_image(folder_paths,
excluded_paths):
    # Převod cest na absolutní cesty
```

```
    folder_paths = [Path(folder).resolve()
for folder in folder_paths]
    excluded_paths =
[Path(excluded).resolve() for excluded in
excluded_paths]

    # Seznam podporovaných přípon souborů
    supported_extensions = ['.png', '.jpg',
'.jpeg', 'tif', 'tiff']

    # Seznam pro ukládání cest k obrázkům
    images = []

    # Prochází všechny zadané adresáře
    for folder_path in folder_paths:
        # Prochází soubory v adresáři a jeho
podsložkách
        for path in folder_path.rglob('*'):
            # Přidává cesty k obrázkům,
pokud mají podporovanou příponu
            if path.suffix.lower() in
supported_extensions:
                images.append(path)

    while True:
        if not images:
            print("V zadaných adresářích
nebyly nalezeny žádné obrázky.")
            return
```

```
        # Náhodný výběr souboru
        image_path = random.choice(images)

        # Kontroluje, zda vybraná cesta
neleží v některém z vyloučených adresářů
        if
any(image_path.is_relative_to(excluded) for
excluded in excluded_paths):
            continue  # Pokud je cesta
vyloučená, vybere jiný obrázek

        print(f"Otevírám obrázek:
{image_path}")
        os.startfile(image_path)
        return

# Seznam cest k adresářům
folder_paths = [
    r"D:\\02_záloha dat",
    r"G:",
    r"K:"
    #r"C:"
]

# Seznam cest k vyloučení
excluded_paths = [
    r"K:\\WEB",
]

while True:  # Nekonečná smyčka
```

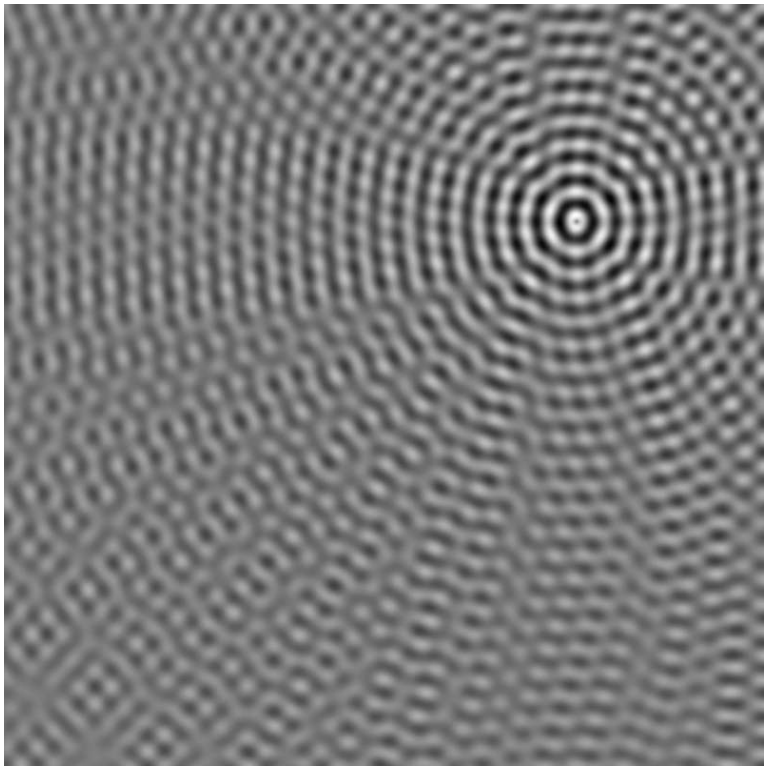
```
    open_random_image(folder_paths,
excluded_paths)
    input("Stiskni ENTER pro opětovné
spuštění nebo Ctrl+C pro ukončení
programu...")
```

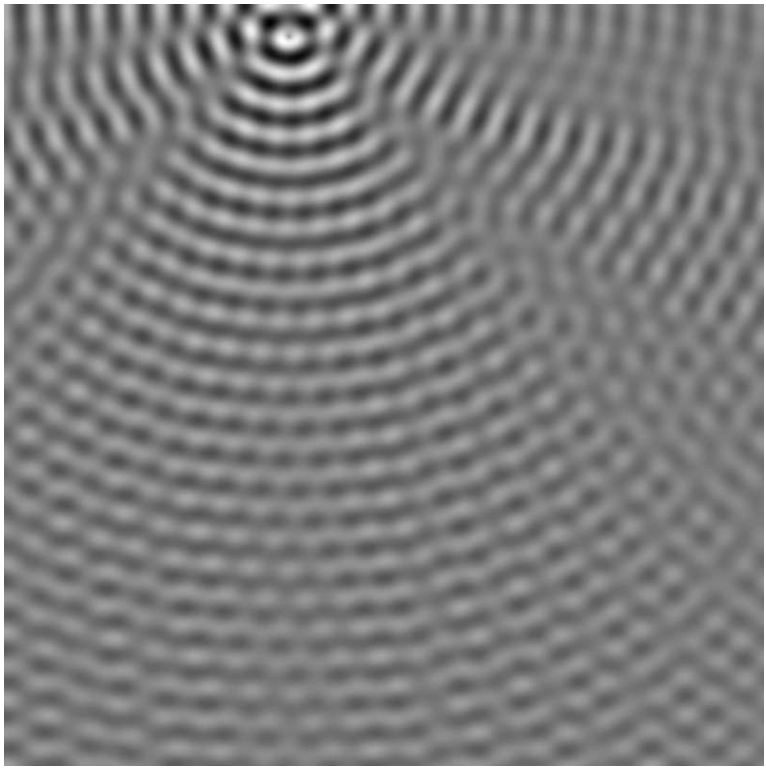
Wave Functions

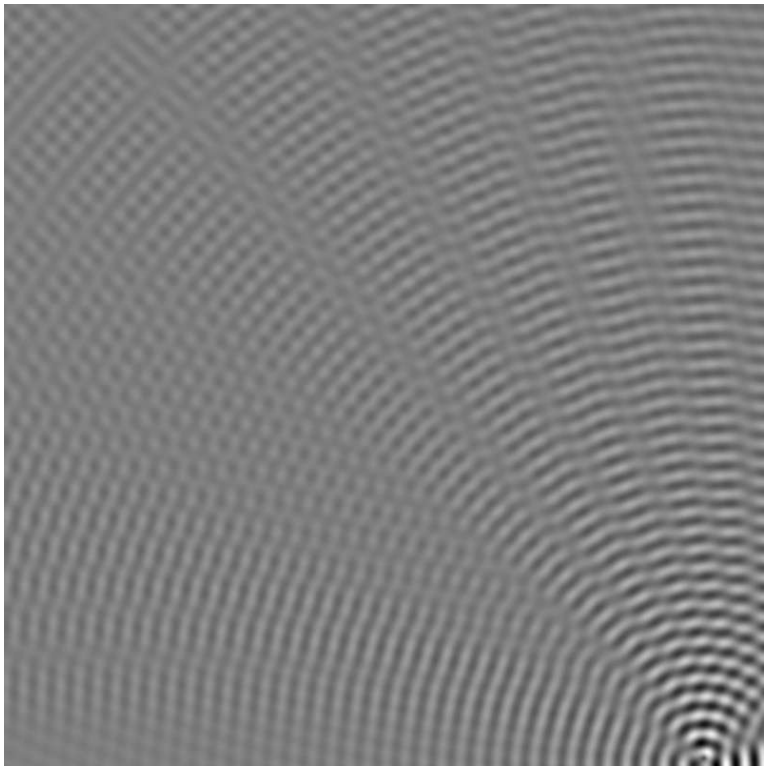
January 2024

This project demonstrates how the propagation and interference of waves, as well as their interaction with the environment, can be simulated using mathematical models and computer simulations. The use of random values for the position of wave sources, their frequency, and amplitude, along with the implementation of decreasing amplitude with increasing distance from the source, wave reflection from the edges of the square, and their mutual interference, creates visually interesting patterns that illustrate the complexity of wave interactions in a confined space. The results are visualized using a black-and-white color scale that represents the intensity of the waves at various points within the square space.

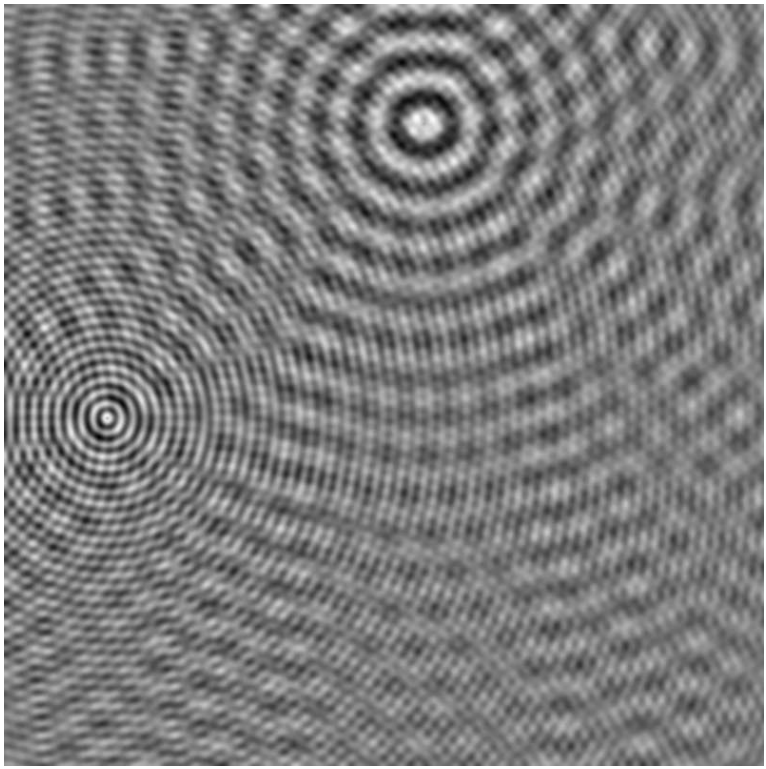
Simulation with 1 wave source:

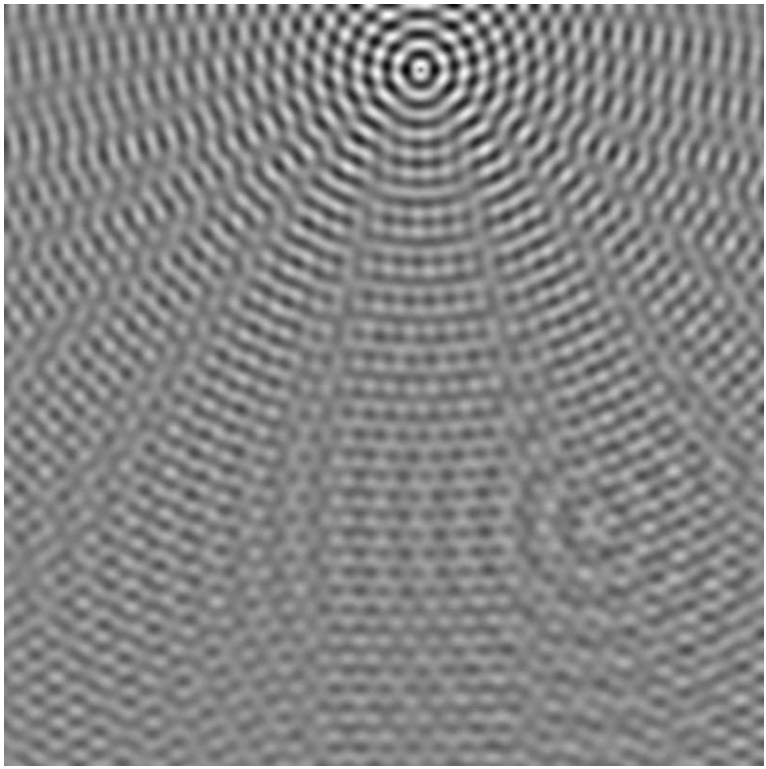


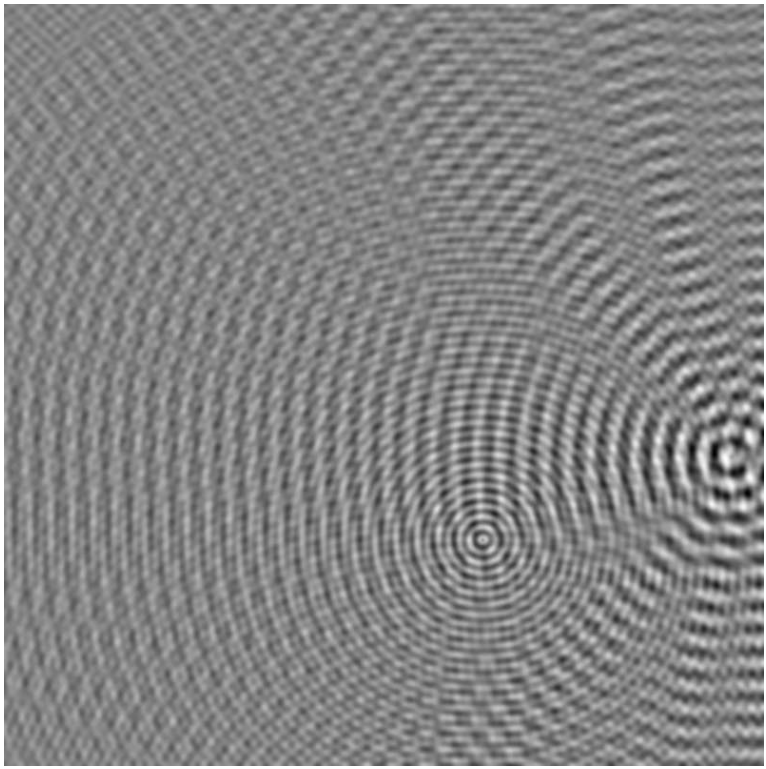




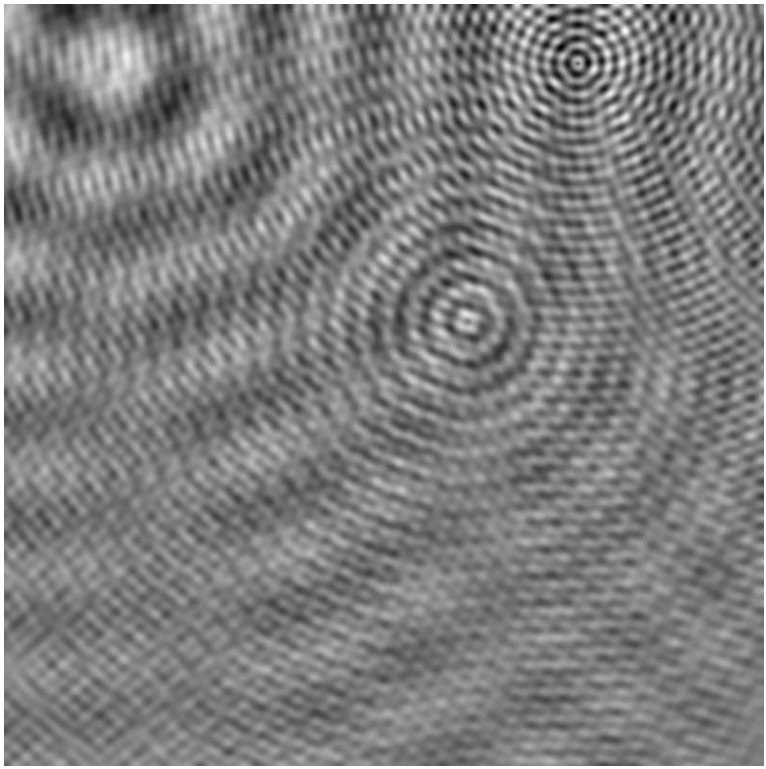
Simulation with 2 wave sources:

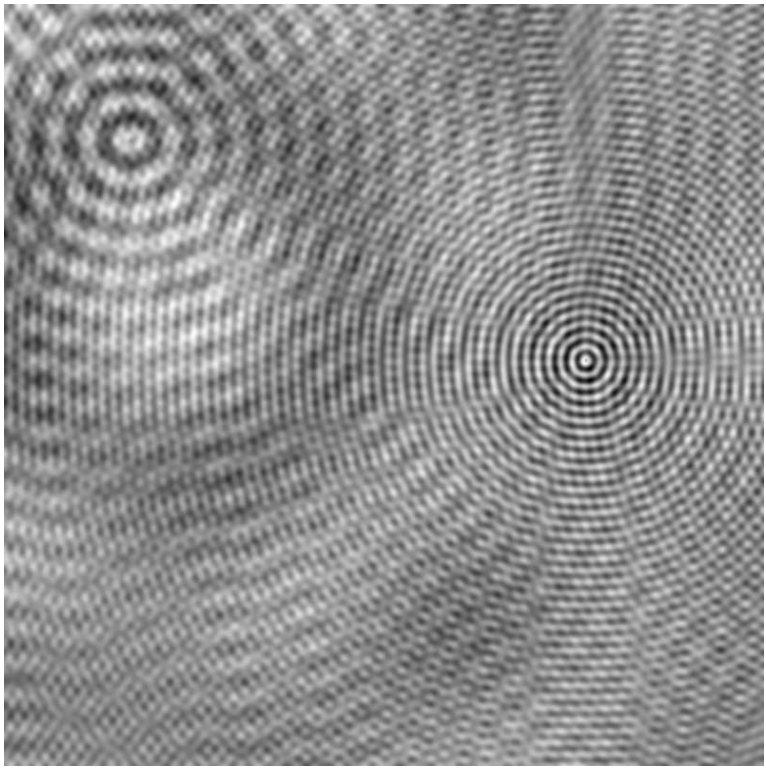


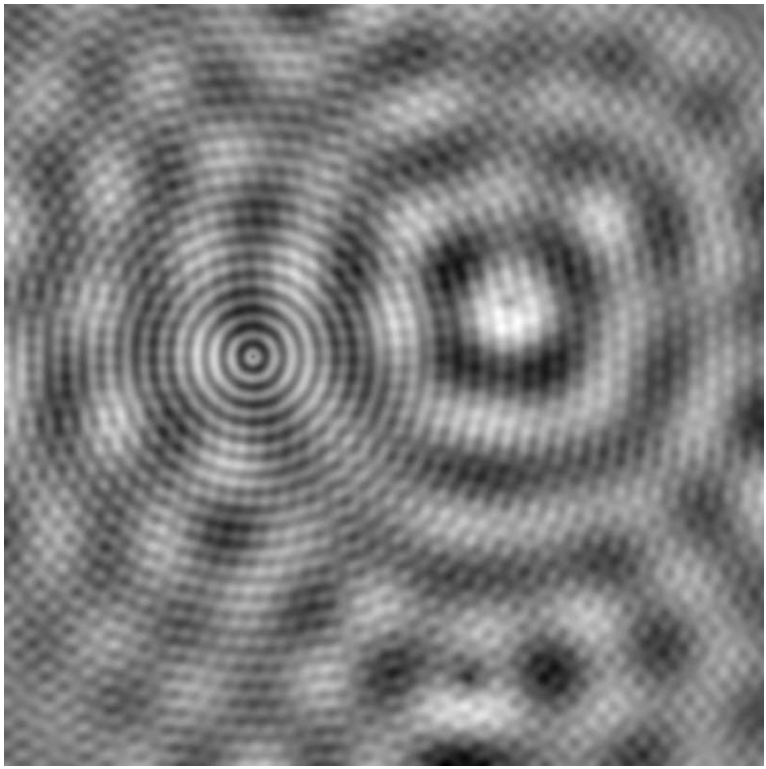




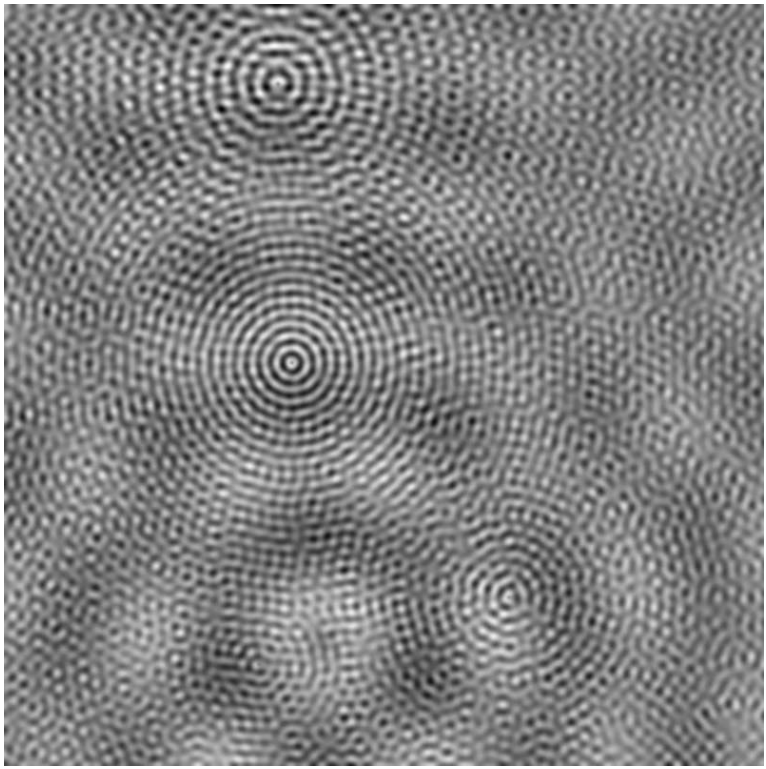
Simulation with 3 wave sources:

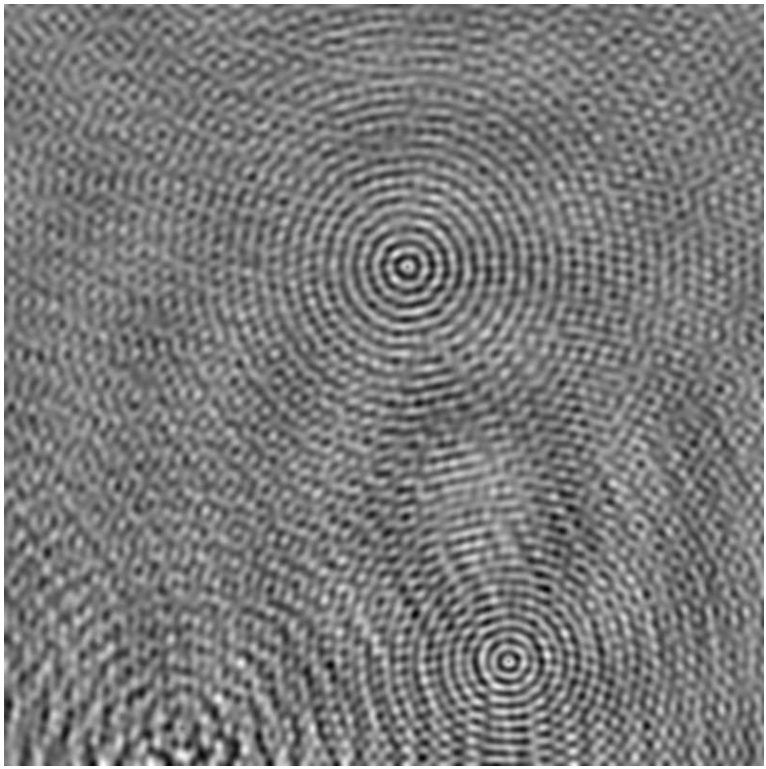


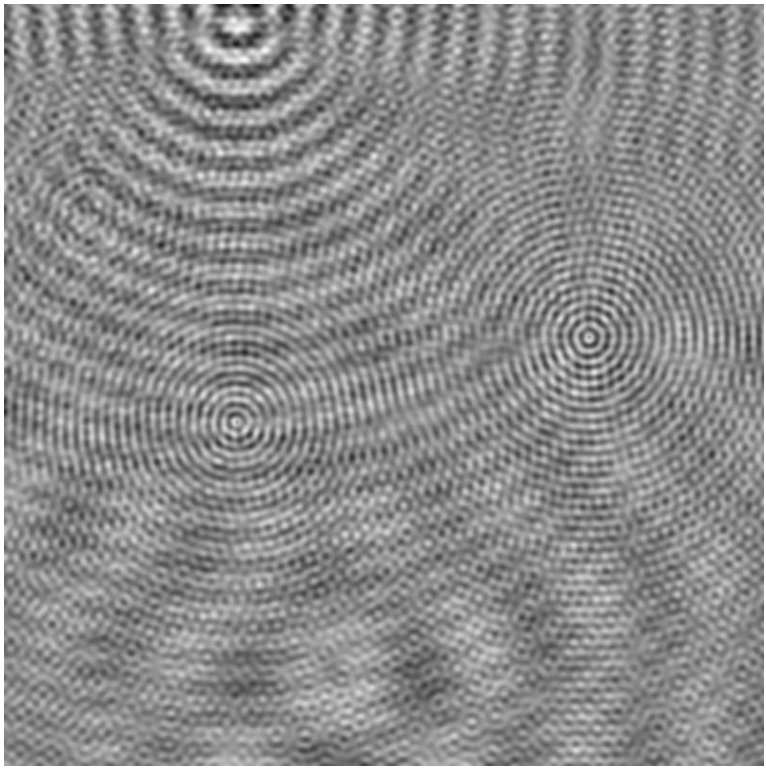




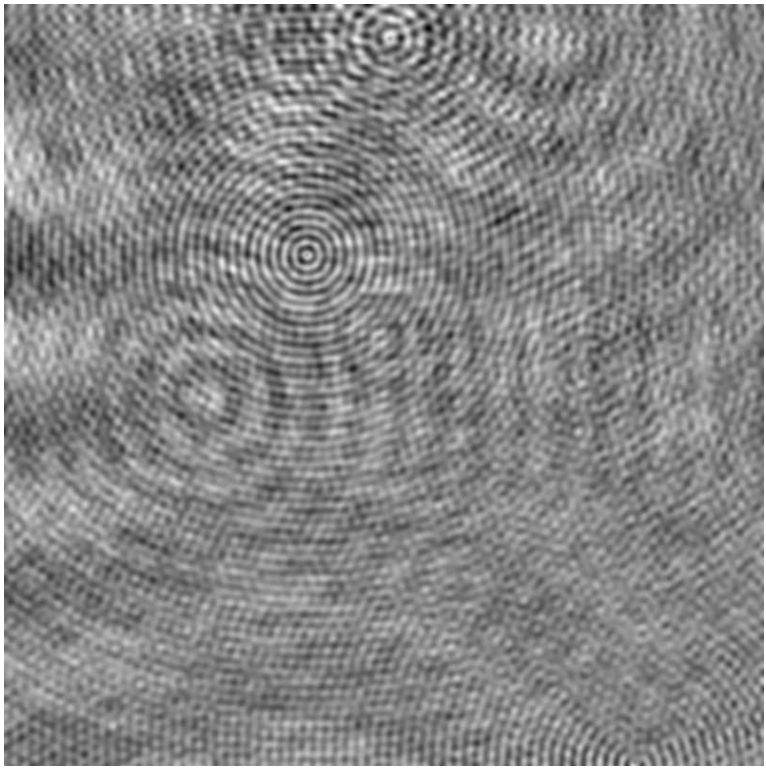
Simulation with 5 wave sources:

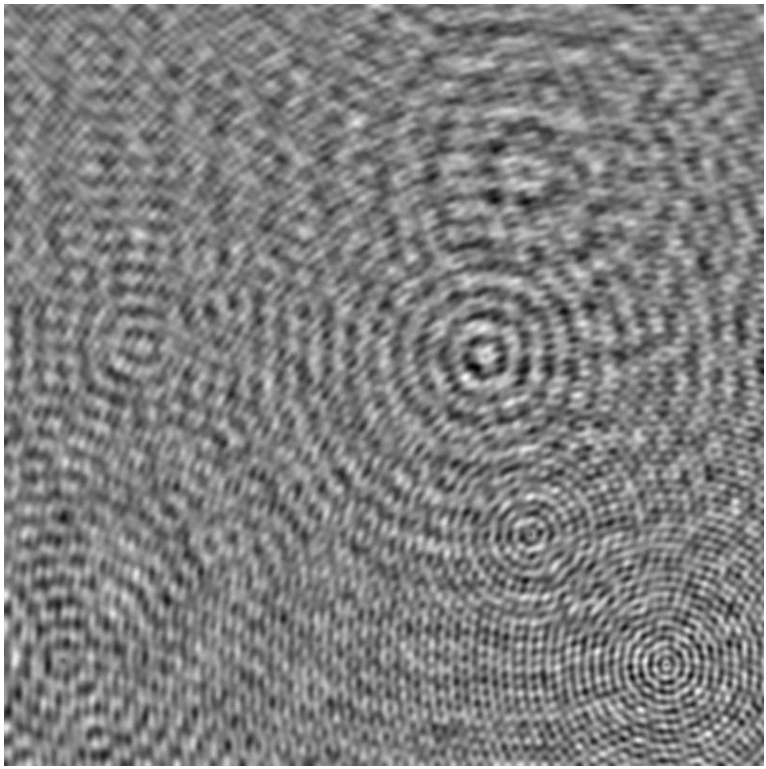


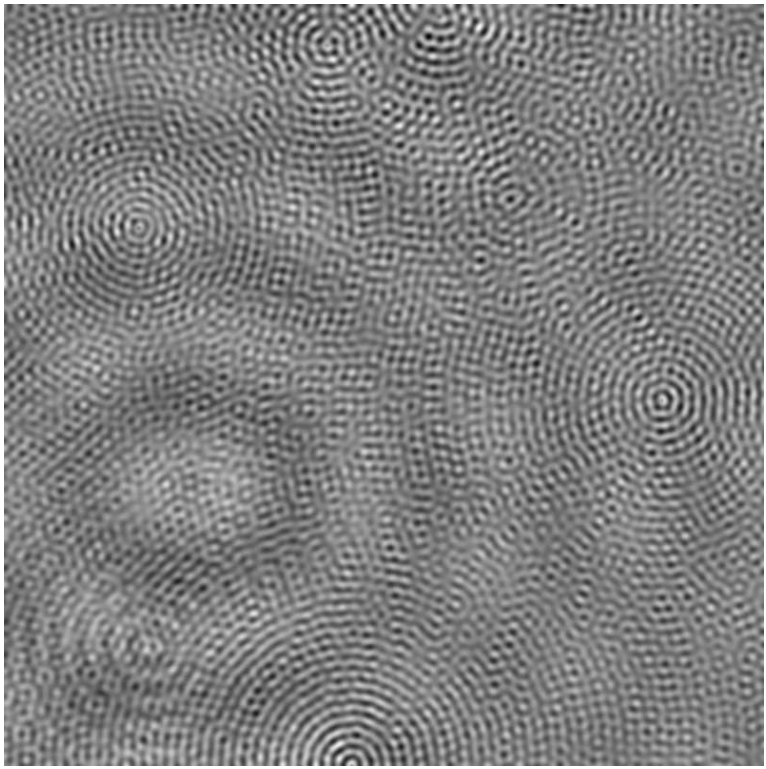




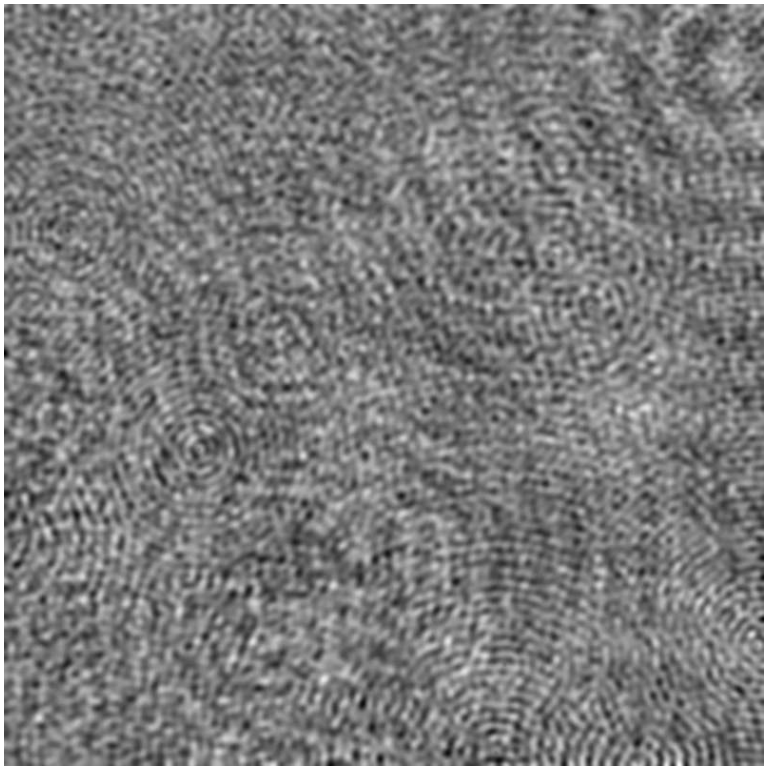
Simulation with 10 wave sources:

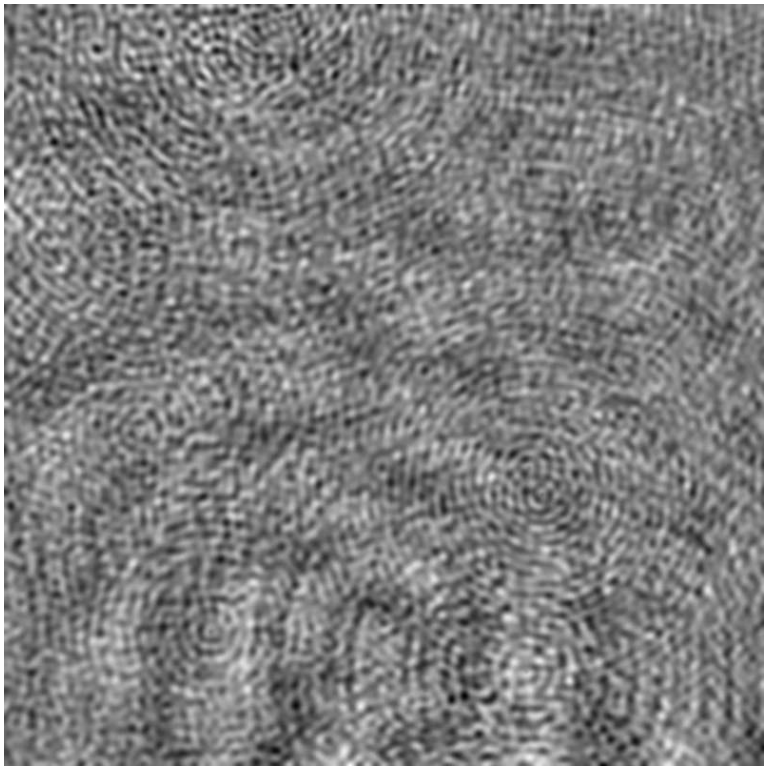


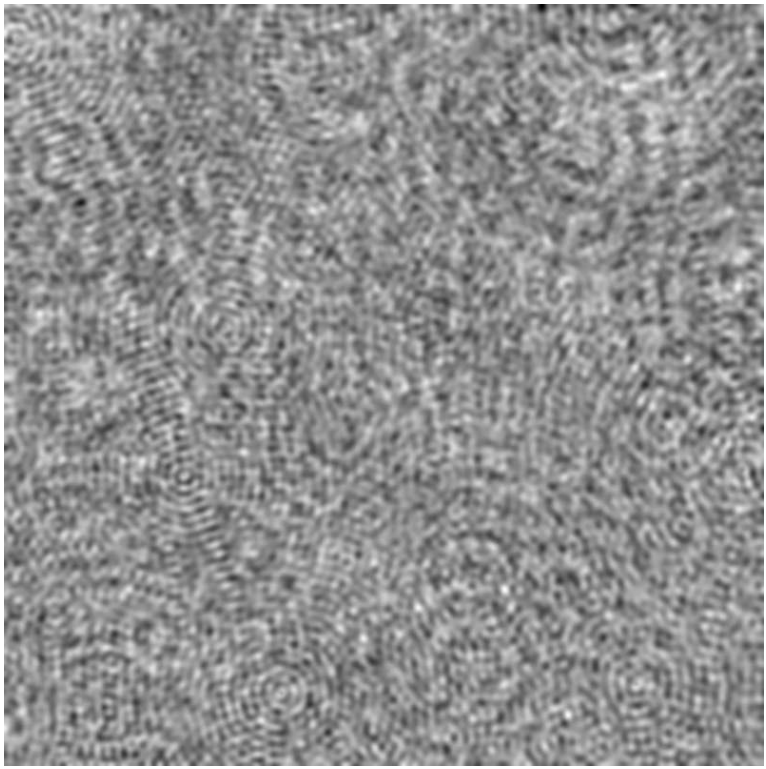




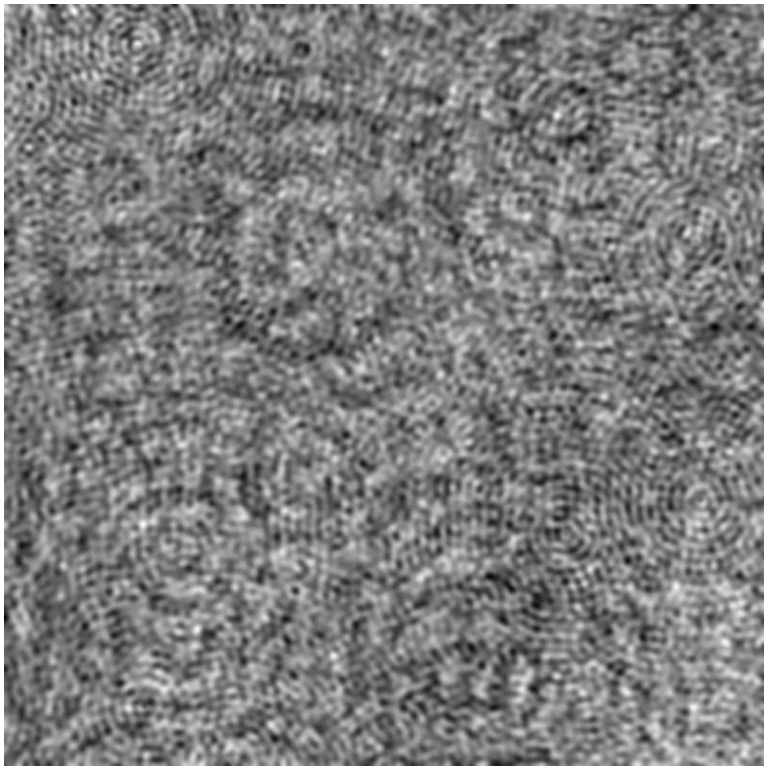
Simulation with 50 wave sources:

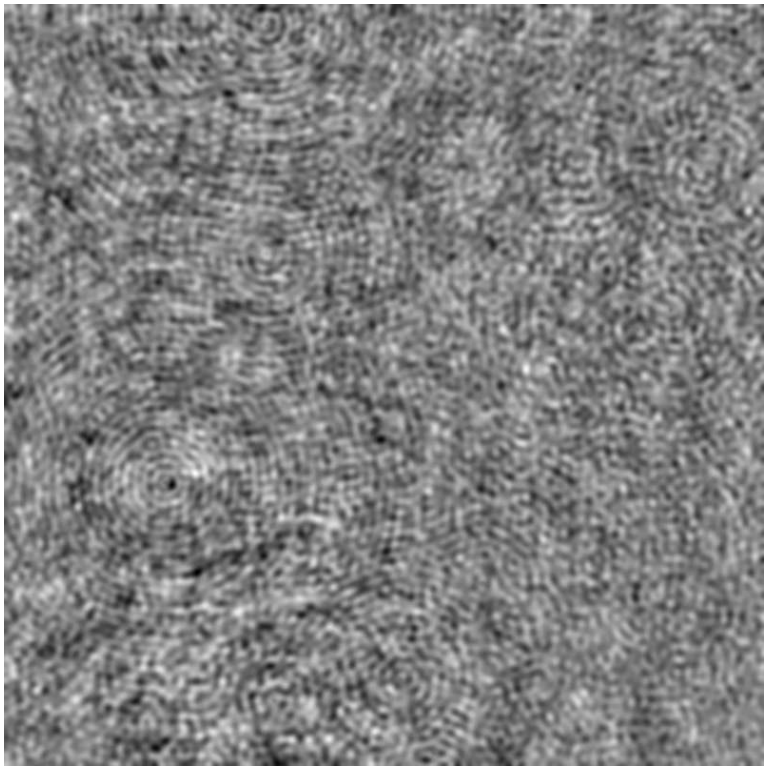


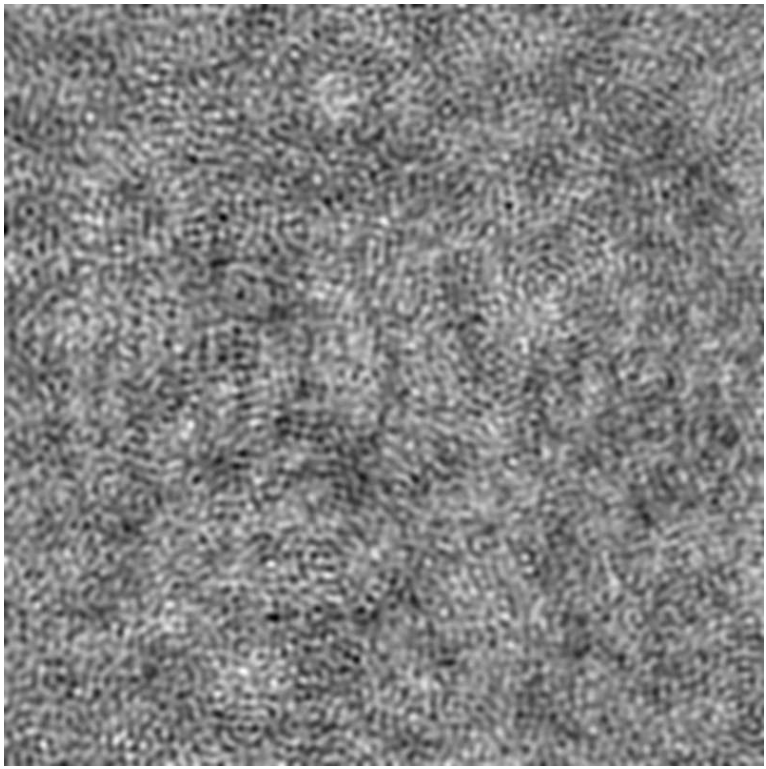




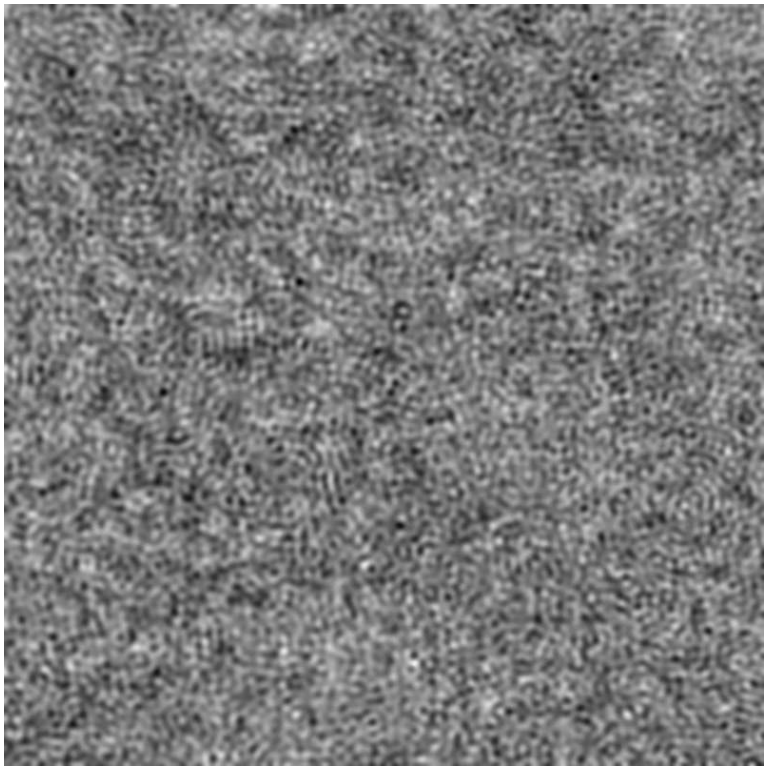
Simulation with 100 wave sources:

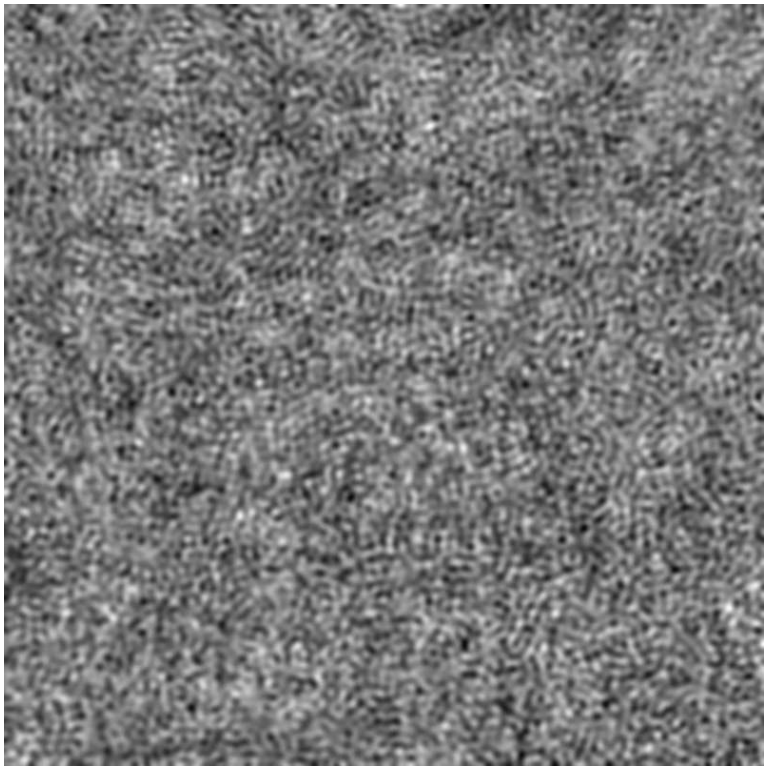


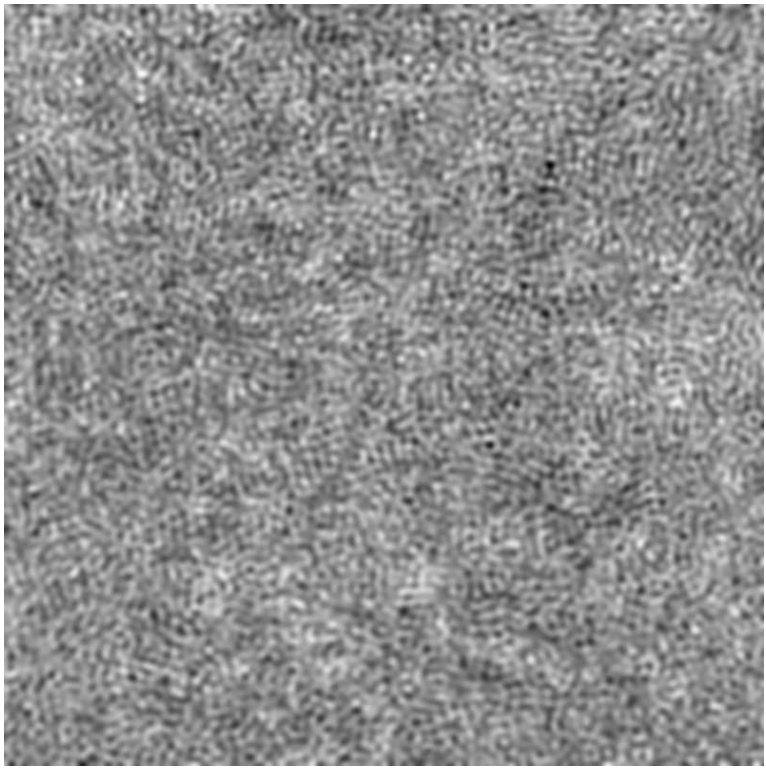




Simulation with 500 wave sources:







Source code

The Python source code for this project is available here:

```
import numpy as np
import matplotlib.pyplot as plt
import os
import re

# Počet obrázků k vytvoření
num_images = 1

# Nastavení rozsahů pro náhodné hodnoty
frequency_range = (1, 50)  # Rozsah
```

```
frekvencí vln
amplitude_range = (0.1, 1)  # Rozsah
amplitud vln

# Počet zdrojů
number_of_sources = 3

# Velikost prostoru pro simulaci a rozlišení
mřížky
space_size = 5
grid_resolution = 1000

for i in range(num_images):
    # Inicializace pole pro simulaci
    Z = np.zeros((grid_resolution,
grid_resolution))

    # Vytvoření mřížky pro simulaci
    x = np.linspace(-space_size, space_size,
grid_resolution)
    y = np.linspace(-space_size, space_size,
grid_resolution)
    X, Y = np.meshgrid(x, y)

    # Generování náhodných zdrojů
    for _ in range(number_of_sources):
        source_position =
np.random.uniform(-space_size, space_size,
2)
        frequency =
```

```
np.random.uniform(*frequency_range)
        amplitude =
np.random.uniform(*amplitude_range)

        # Výpočet vzdálenosti od zdroje a
přidání vlny do simulace
        R = np.sqrt((X -
source_position[0])**2 + (Y -
source_position[1])**2)
        Z += amplitude * np.sin(frequency *
R) / (R + 1)  # Přidání útlumu amplitudy

        # Odrážení vln od stěn
        for wall in [-space_size,
space_size]:
            R_vertical = np.sqrt((X - 2*wall
+ source_position[0])**2 + (Y -
source_position[1])**2)
            R_horizontal = np.sqrt((X -
source_position[0])**2 + (Y - 2*wall +
source_position[1])**2)
            Z += amplitude *
np.sin(frequency * R_vertical) / (R_vertical
+ 1)
            Z += amplitude *
np.sin(frequency * R_horizontal) /
(R_horizontal + 1)

    # Vykreslení výsledku
    plt.figure(figsize=(10, 10))
```

```
    plt.imshow(Z, cmap='gray', extent=[-
space_size, space_size, -space_size,
space_size])
    plt.axis('off')

    # Před uložením obrázku použijte
tight_layout pro optimalizaci rozložení
    #plt.tight_layout()

    # Uložení obrázku
    pattern =
r"wave_interference_pattern_(\d+).png"
    existing_files = [f for f in
os.listdir('.') if re.match(pattern, f)]
    if existing_files:
        numbers = [int(re.search(pattern,
f).group(1)) for f in existing_files]
        max_number = max(numbers)
    else:
        max_number = 0
    file_name =
f"wave_interference_pattern_{max_number +
1:05d}.png"
    plt.savefig(file_name,
bbox_inches='tight', pad_inches=0,
transparent=False,
dpi=(grid_resolution*1.3)//10)
    plt.close()  # Zavření obrázku po
uložení
```

Cursor Trajectory

August 2023

It may seem that our daily interactions with a computer mouse are routine and not particularly noteworthy. But what if it were possible to transform these routine movements into something more—something that creates a unique visual representation of computer work? Thanks to code that tracks the mouse cursor's position and the color of the pixel beneath it, this idea can become a reality.

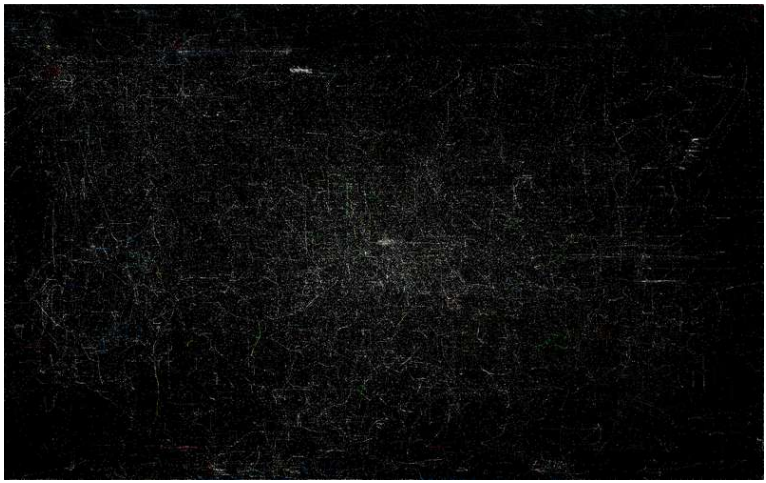
How does it work?

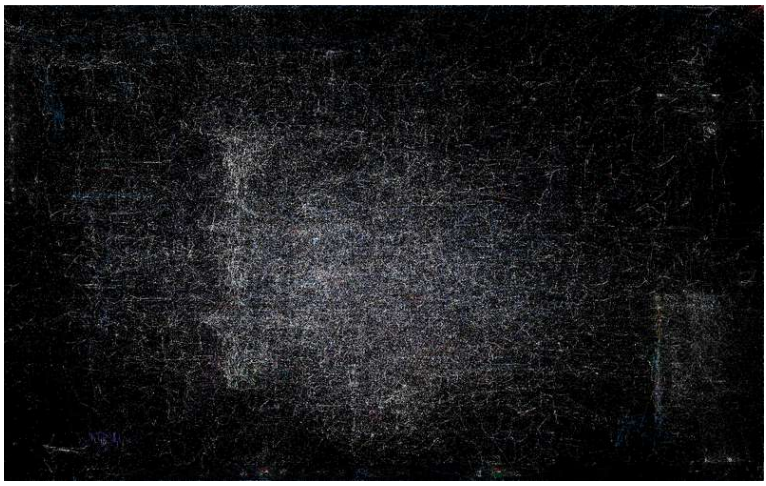
This code tracks where the mouse cursor is on the screen and the color of the pixel beneath it. This information is then transferred in real time to a virtual canvas with the same resolution as the screen. Whenever the mouse moves, the code renders a pixel with the color that was directly beneath the cursor at the position where the cursor was located. This means that as you work and move around on the screen, colorful trajectories are created on the canvas. These trajectories are unique and represent the user's work and interaction with the computer.

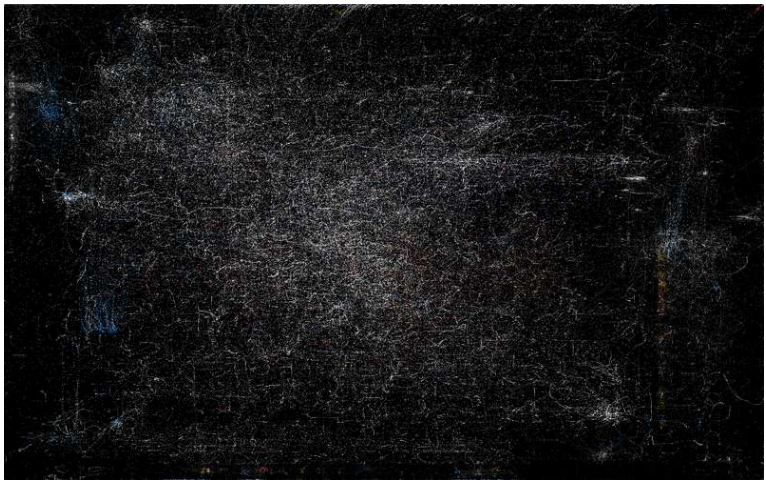
What happens over time?

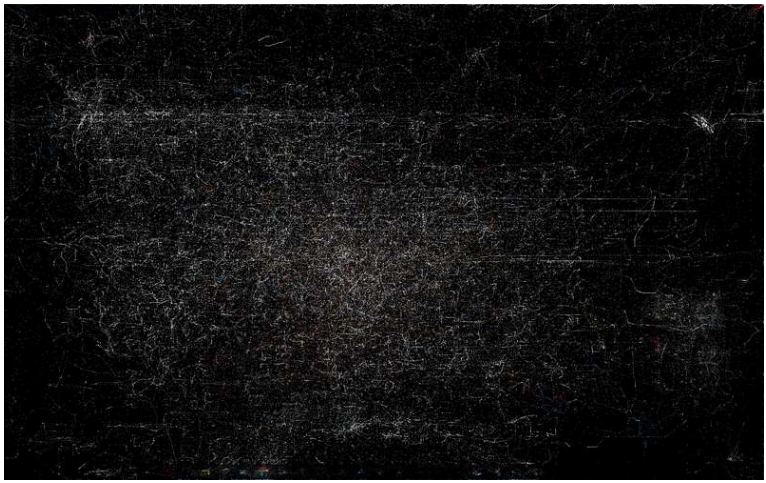
If this process runs long enough, the canvas begins to fill up and the trajectories become less noticeable. Instead, most of the canvas begins to look like pseudo-random noise. However, there are certain areas of the screen that do not change much over time. This could be, for example, the Windows taskbar, where software icons are located. These areas on the canvas remain

more or less the same.









Conclusion

This code represents a fusion of technology and art that transforms everyday interactions with a computer into something visually captivating. Although working on a computer may seem routine and monotonous at first glance, this project shows that even such an activity can have its own beauty and rhythm.

Source Code

The Python source code for this project is available here:

```
 import pygame
import pyautogui
import sys
import time

# Inicializace Pygame
pygame.init()

# Získání rozměrů obrazovky
```

```
screen_info = pygame.display.Info()
screen_width = screen_info.current_w
screen_height = screen_info.current_h

# Vytvoření okna o rozměrech shodných s
rozměry obrazovky
screen =
pygame.display.set_mode((screen_width,
screen_height))

# Hlavní smyčka programu
running = True
start_time = time.time()
while running:
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            running = False
        elif event.type == pygame.KEYDOWN:
            if event.key == pygame.K_ESCAPE:
 # Když stisknete klávesu ESC, okno se zavře
                running = False

    # Získání souřadnic kurzoru pomocí
PyAutoGUI
    x, y = pyautogui.position()

    # Získání barvy pixelu pod kurzorem
    if 0 <= x < screen_width and 0 <= y <
screen_height:  # Zkontrolujte, zda jsou
souřadnice v rámci obrazovky
```

```
            try:
                r, g, b = pyautogui.pixel(x, y)
                # Nabarvení pixelu na plátně
touto barvou
                screen.set_at((x, y), (r, g, b))
            except:
                pass

    # Aktualizace zobrazení
    pygame.display.flip()

    # Uložení záložního obrázku každé 3
minuty
    if time.time() - start_time >= 180:  #
180 sekund = 3 minuty
        pygame.image.save(screen,
"output_backup.png")
        start_time = time.time()

# Uložení obrázku
pygame.image.save(screen, "output.png")

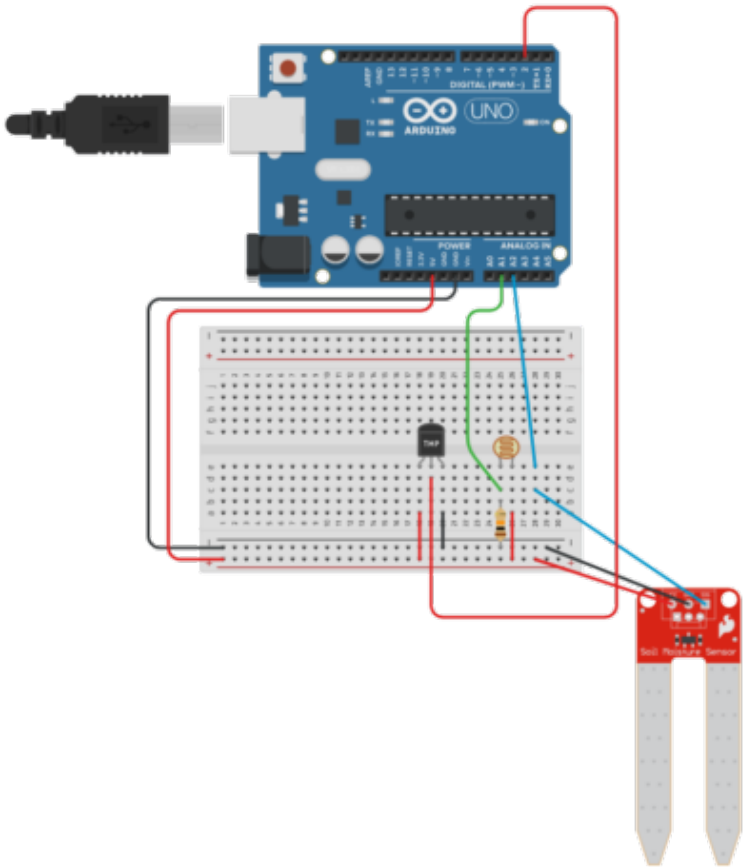
# Ukončení Pygame
pygame.quit()
sys.exit()
```

Plant Records

June 2023

Introduction

In this article, we'll look at a project that combines the worlds of plants, electronics, programming, and visual art. The project uses Arduino and Python to create visualizations of plant life experiences.



How does it work?

The Arduino is equipped with three sensors—a thermometer, a photoresistor, and a moisture sensor. These sensors are placed in a flower pot with various types of plants (e.g., squash, peas, sunflowers, eggplants, cress, peppers, etc.). The sensors continuously collect data on temperature, light intensity, and soil moisture.

The program then creates a blank canvas measuring 100×100 pixels. Each pixel on this canvas is colored based on the data

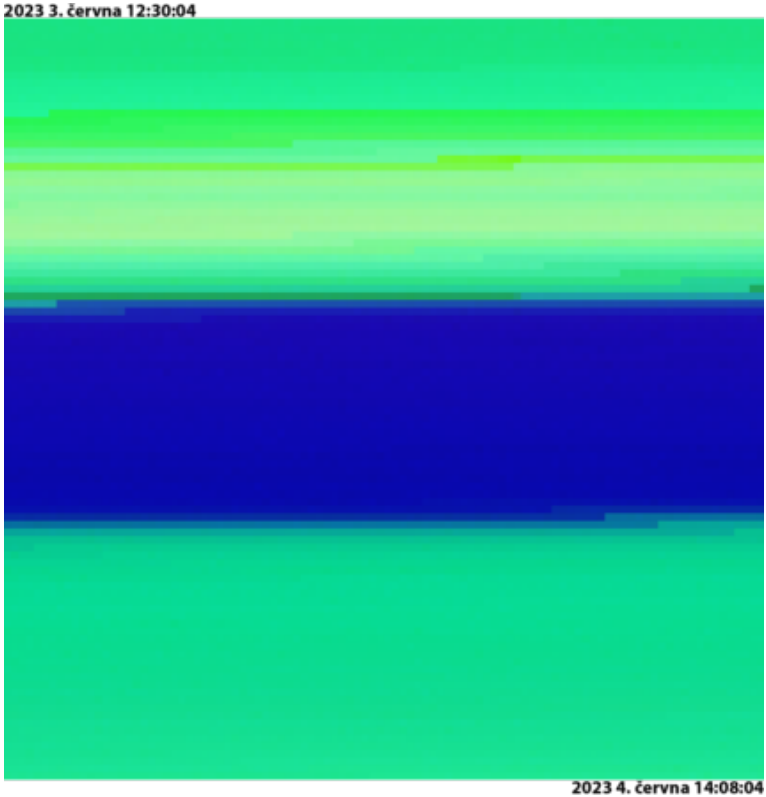
obtained from the sensors. The RGB value of a pixel's color is determined such that the R (red) value corresponds to temperature, G (green) to light, and B (blue) to moisture.

Visualization of a Single Day

First, we'll look at a simple version of the project, where a single image represents a single day in the life of the plants. The program begins by coloring the first pixel in the upper-left corner and gradually colors each pixel based on the current values obtained from the sensors. After coloring a pixel, the program waits a moment before moving on to the next pixel. When it reaches the end of a row, it moves to the beginning of the next row and continues coloring. This process continues until all pixels on the canvas are colored.

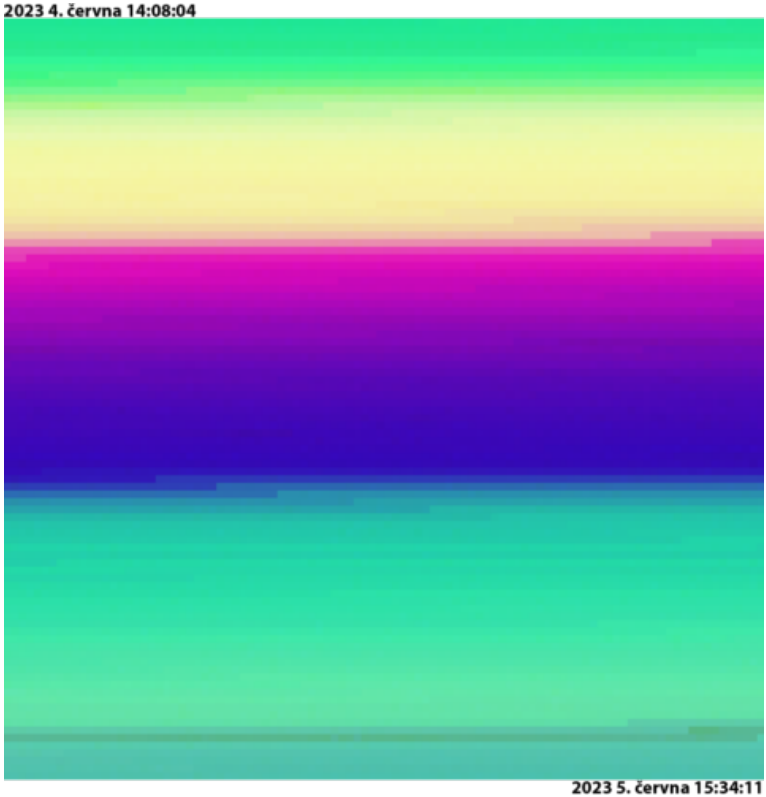
Sunflower recording:

2023 3. června 12:30:04



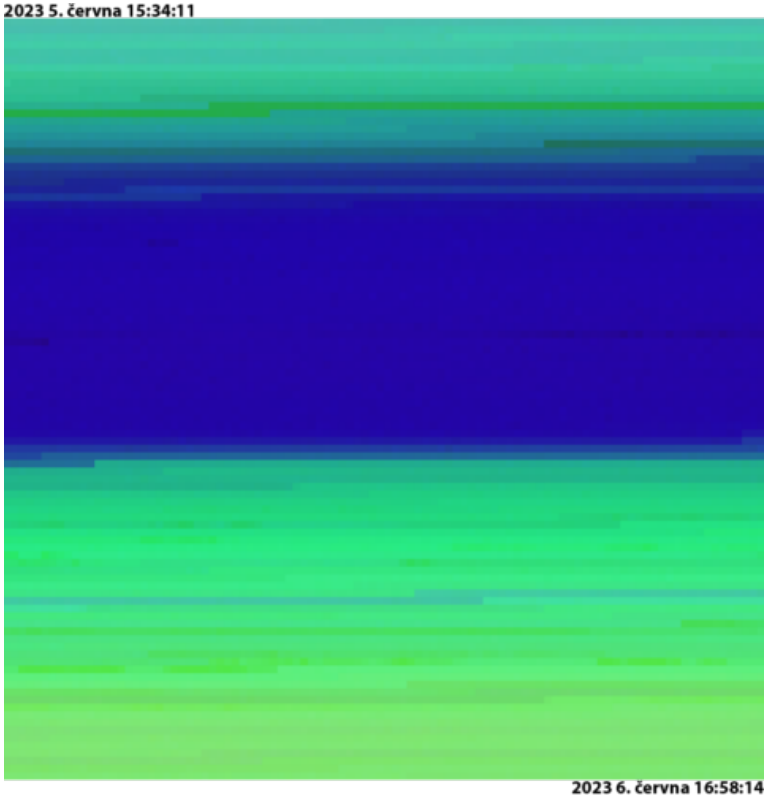
2023 4. června 14:08:04

2023 4. června 14:08:04



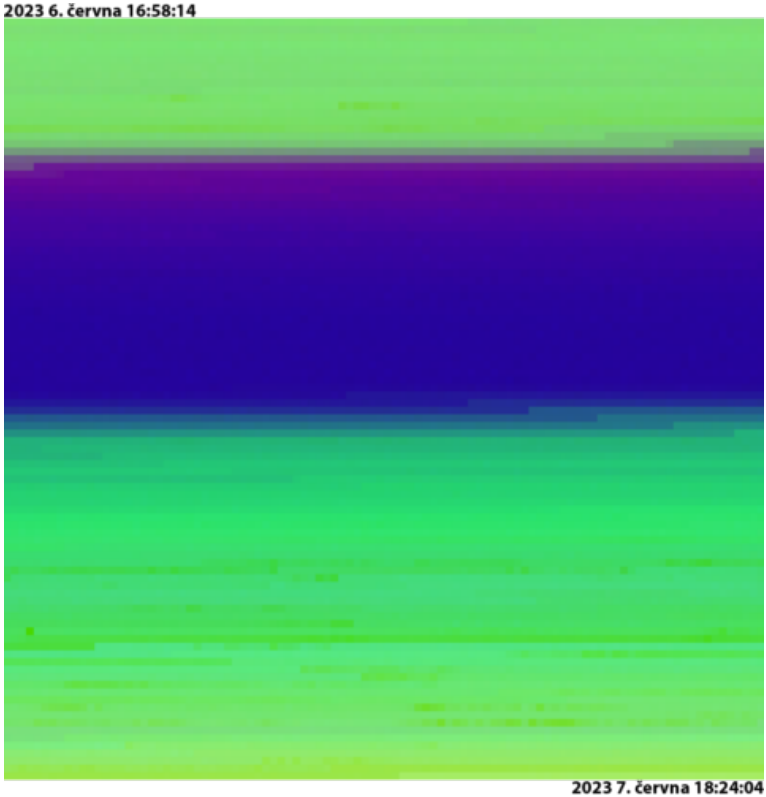
2023 5. června 15:34:11

2023 5. června 15:34:11



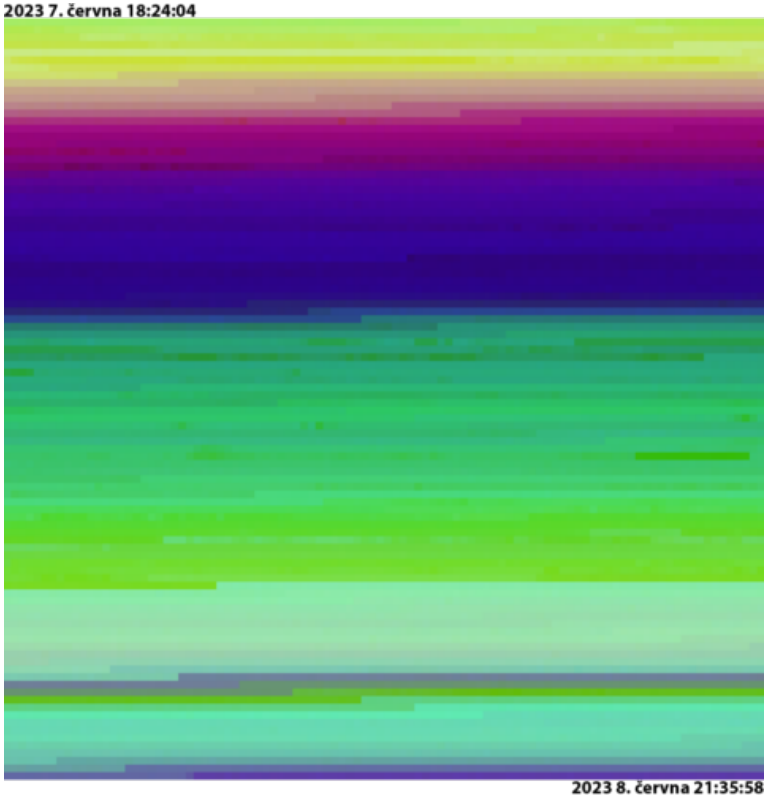
2023 6. června 16:58:14

2023 6. června 16:58:14

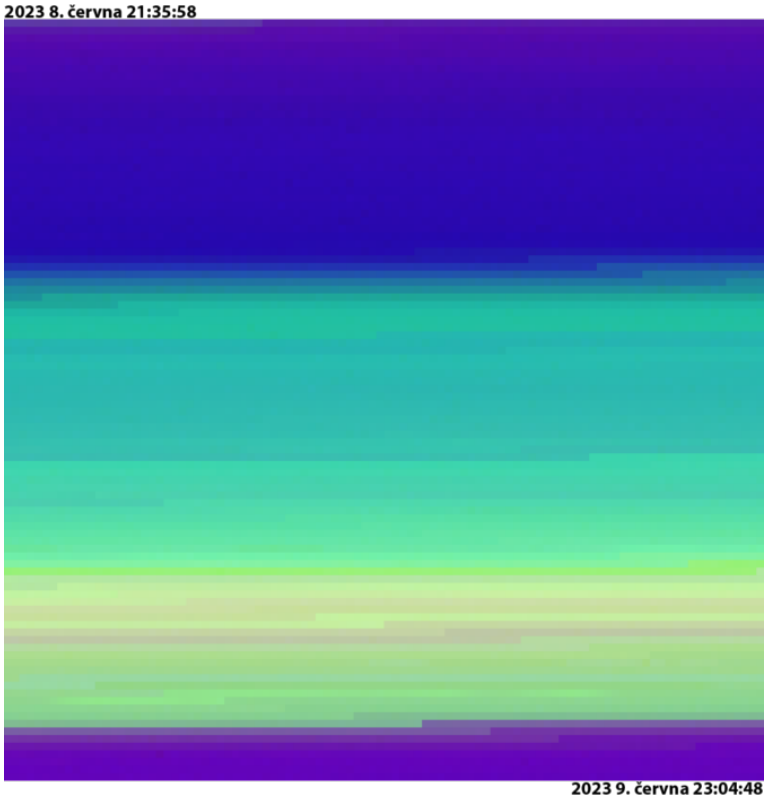


2023 7. června 18:24:04

2023 7. června 18:24:04



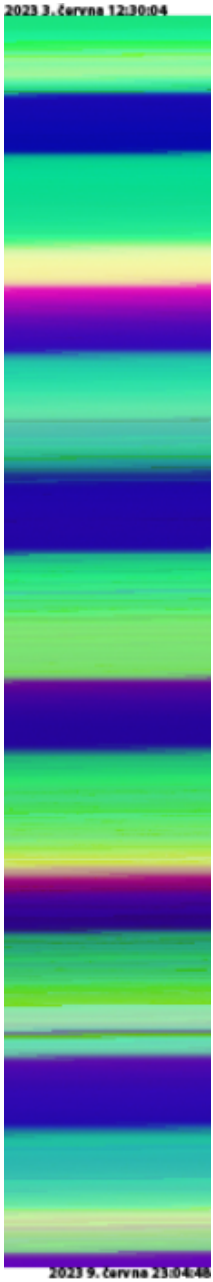
2023 8. června 21:35:58



Stacking Outputs

After visualizing a single day, we can expand this process to create a series of images representing longer time periods. Individual square outputs can be stacked one below the other, creating composite images. Since the next output begins generating immediately after one is completed, there is no interruption in the flow of time. In this way, we can create images with a resolution of, for example, 100x500 pixels if they are composed of five outputs.

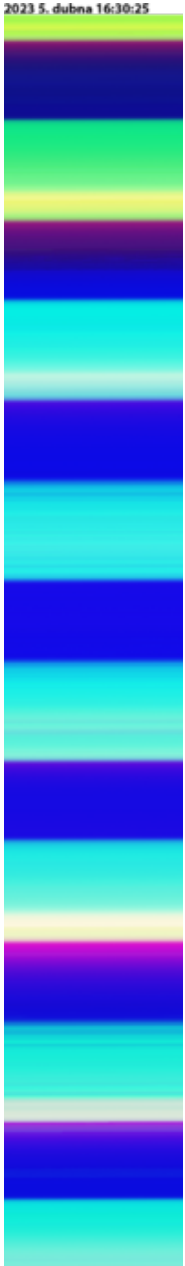
Sunflower recording:



Pattypan squash recording:

Prima

2023 5. dubna 16:30:25

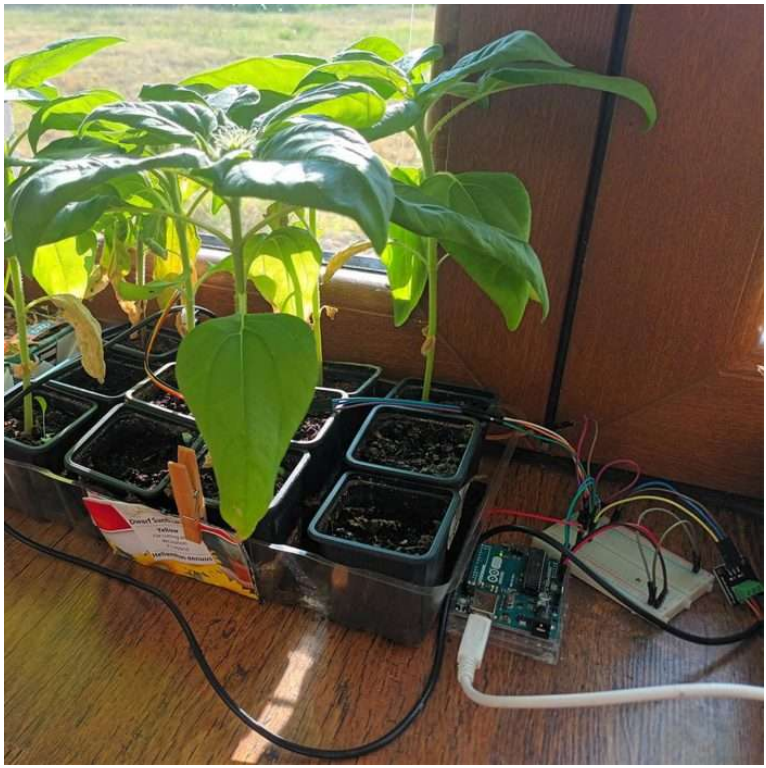


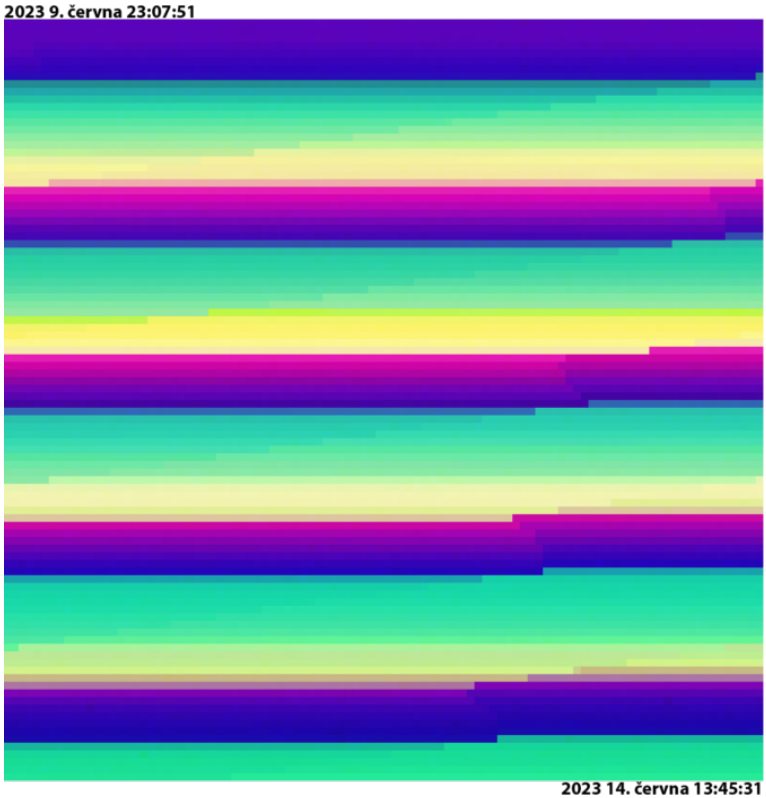
2023 12. dubna 16:13:56

Extending the interval between measurements

The interval between measurements of individual pixels can be extended. In this way, a single 100×100-pixel square can represent not just one day, but many days. This principle allows us to track a plant's development over a longer period of time in a single image.

Sunflower record:

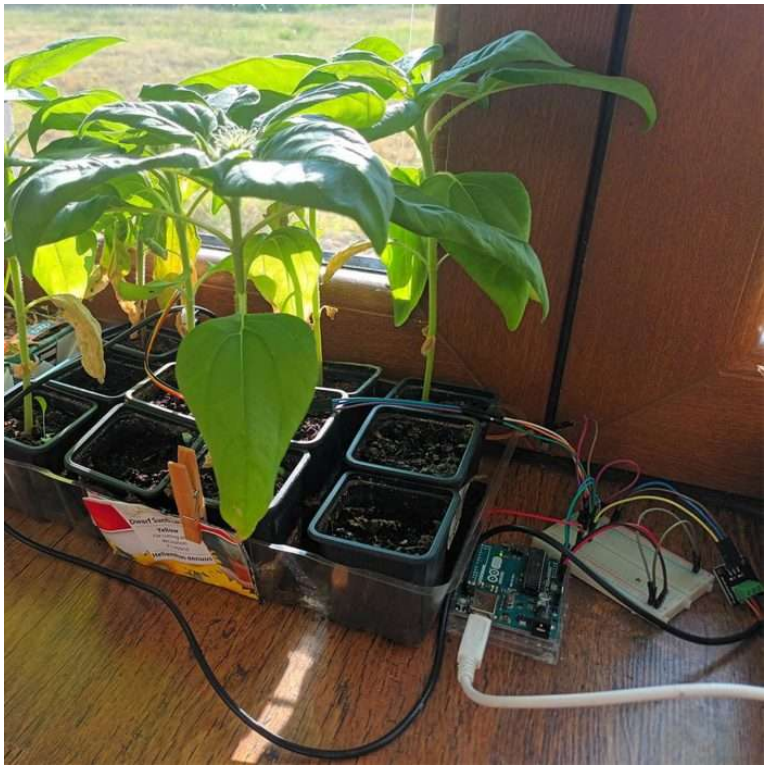


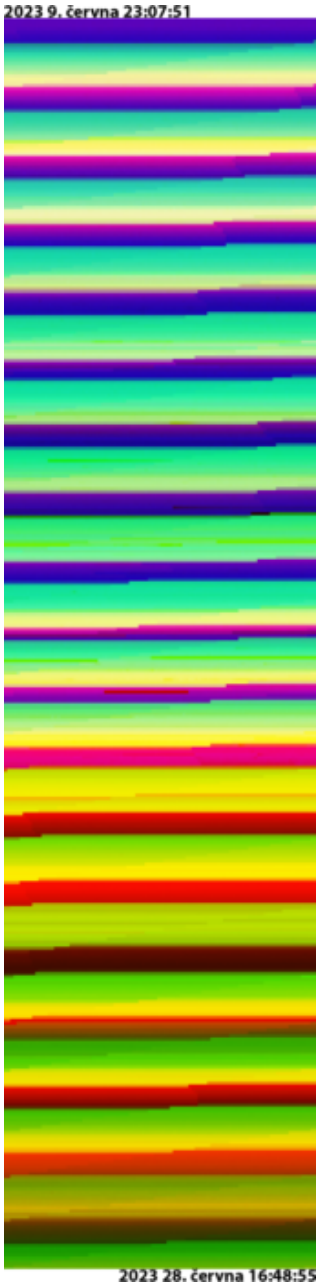


Combining the principles

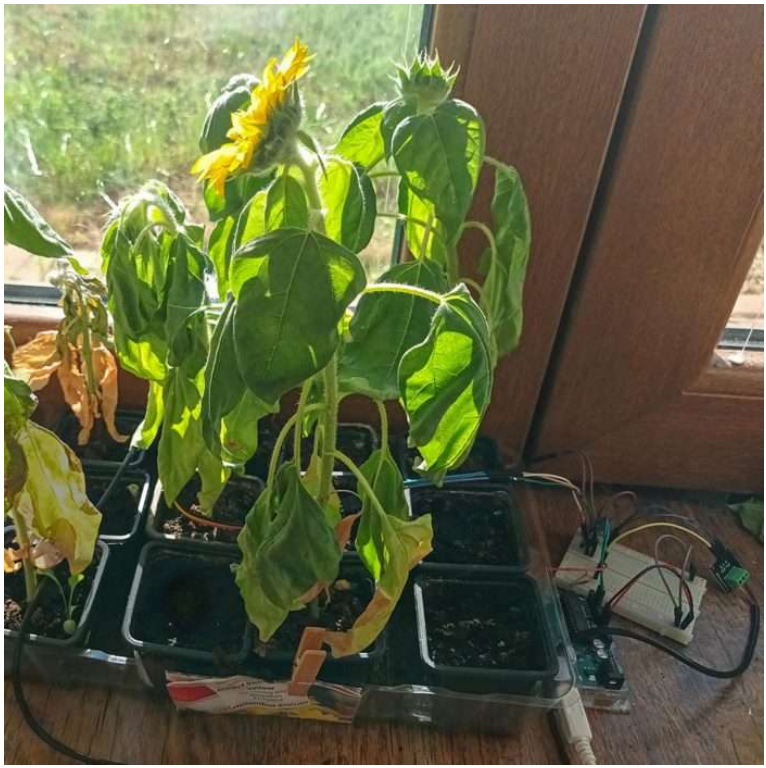
By combining both principles, we can create a series of images where each image represents several days, and the entire series then covers many days or even weeks. In this way, we can track and visualize the long-term development of a plant.

Sunflower record:

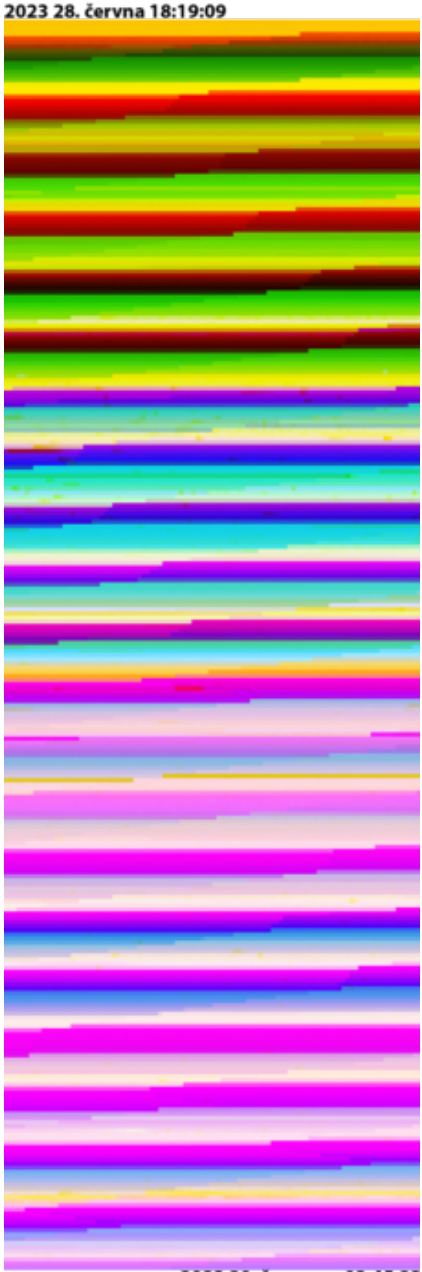




Sunflower record:



2023 28. června 18:19:09



2023 20. července 03:45:23

Interpretation of

Results The resulting images provide us with a unique insight into plant life. The blue “lines” in the image represent nights, as it was mostly humid but not too warm, and there was no light. Conversely, the yellow “lines” are caused by direct sunlight hitting the plant toward the end of the day, which caused an increase in temperature and light intensity. This manifested in the image as an increase in the red and green channel values, which together produce the color yellow. Occasionally, faint lines are visible at the beginning of the night because I sometimes turned on the lamp in the room in the evening. In other outputs, the drop in light intensity indicates that it was raining, for example.

Source Code

The Python source code for this project is available here:

```
import serial
import pygame
import pygame.image
import decimal
import datetime

# Define constants
MAX_8BIT = 255
MAX_10BIT = 1023
WIDTH = 100
HEIGHT = WIDTH
SERIAL_PORT = 'COM3'
DELAY = 20 * 1000
MAX_RETRIES = 5
```

```
MIN_HUMIDITY = 750
MAX_HUMIDITY = 850

def actual_time():
    now_raw = str(datetime.datetime.now())
    now = now_raw.replace(":", "-")
    return now

def temperature_to_interval(temperature):
    return 1 / (1 + 2**(-1 * (temperature -
22)))

def remap_humidity(humidity, min_measured,
max_measured):
    humidity_range = max_measured -
min_measured
    humidity_proportion = (humidity -
min_measured) / humidity_range
    lightness = int(humidity_proportion *
MAX_10BIT)
    return min(max(lightness, 0), MAX_10BIT)

def max_255(v):
    return min(v, MAX_8BIT)

def remap_10bit_to_8bit(number):
    if not 0 <= number <= MAX_10BIT:
        raise ValueError("Input number must
be between 0 and 1023")
    return round(number / 4)
```

```
def separate_data(data):
    temp, light, hum = map(float,
data.split("|"))
    return temp, light, hum

def write_to_log(log):
    with open('log.txt', 'a') as f:
        f.write(log + "\n")

def read_arduino_data(ser, delay):
    data1 = ser.readline().decode().strip()
    pygame.time.wait(delay)
    data2 = ser.readline().decode().strip()
    pygame.time.wait(delay)
    data3 = ser.readline().decode().strip()
    pygame.time.wait(delay)
    if len(data1) != len(data2) or
len(data2) != len(data3):
        return read_arduino_data(ser, delay)
    return data1, data2, data3

ser = serial.Serial(port=SERIAL_PORT,
baudrate=115200)

pygame.init()
win = pygame.display.set_mode((WIDTH,
HEIGHT))
surface = pygame.Surface((WIDTH, HEIGHT))
pygame.display.set_caption("TEMPERATURE +
```

```
LIGHT + HUMIDITY")

for i in range(5):
    data_test =
ser.readline().decode().strip()
    pygame.time.wait(100)

x = 0
y = 0
img_num = 0
sensitivity = 1
start_time = actual_time()
running = True

while running:
    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            finish_time = actual_time()
            pygame.display.update()
            name = str(img_num)
            pygame.image.save(surface, '{},
START {}, FINISH {}
(incomplete).png'.format(name, start_time,
finish_time))
            print("IMAGE SAVED BUT
INCOMPLETE")
            write_to_log("IMAGE SAVED BUT
INCOMPLETE")
            running = False
    if running == False:
```

```
            break

        for _ in range(MAX_RETRIES):
            try:
                data1, data2, data3 =
read_arduino_data(ser, DELAY)
                break
            except Exception:
                print("COULD NOT READ THE DATA,
TRYING AGAIN...")
                write_to_log("COULD NOT READ THE
DATA, TRYING AGAIN...")
                pygame.time.wait(500)
        else:
            print("FAILED TO READ DATA AFTER {}
RETRIES".format(MAX_RETRIES))
            write_to_log("FAILED TO READ DATA
AFTER {} RETRIES".format(MAX_RETRIES))
            continue

        Rraw = (separate_data(data1)[0] +
separate_data(data2)[0] +
separate_data(data3)[0]) / 3
        R =
round(max_255(temperature_to_interval(Rraw)
* MAX_8BIT * sensitivity))

        Graw = (separate_data(data1)[1] +
separate_data(data2)[1] +
separate_data(data3)[1]) / 3
```

```
    G =
round(max_255(remap_10bit_to_8bit(Graw) *
sensitivity))

    Braw = (separate_data(data1)[2] +
separate_data(data2)[2] +
separate_data(data1)[2]) / 3
    B = remap_humidity(Braw,
min_measured=MIN_HUMIDITY,
max_measured=MAX_HUMIDITY)
    B = round(max_255(remap_10bit_to_8bit(B)
* sensitivity))

    color = [R, G, B]
    pygame.draw.rect(win, color, [x, y, 1,
1])
    surface.set_at((x, y), (color[0],
color[1], color[2]))
    if (x + 1) < WIDTH:
        pygame.draw.rect(win, [0, 255, 0],
[x + 1, y, 1, 1])
    pygame.display.flip()

    #   print current data with colored text
    if color[0] + color[1] + color[2] > 127:
        text_color = "0"
    else:
        text_color = "255"
    log = "COLOR: [{}, {}, {}],  TEMP.:
{:.2f}°C, LIGHT: {}, HUM.: {},  TIME: {},
```

```
IMAGE NUMBER: {},   COMPLETED: {:.3f}%,  x:
{}, y: {}" \
        .format(R, G, B, Rraw, round(Graw),
round(Braw), actual_time(), img_num, (WIDTH
* y + x + 1) / (WIDTH * HEIGHT) * 100, x, y)
    print('\033[38;2;{};{};{}m\033[48;2;{};
{};{}m'
          .format(text_color, text_color,
text_color, str(color[0]), str(color[1]),
str(color[2])) +
          log +
          '\033[0m')
    write_to_log(log)

    x += 1
    if x >= WIDTH:
        x = 0
        y += 1
    if y >= HEIGHT:
        y = 0
        finish_time = actual_time()
        pygame.display.update()
        name = str(img_num)
        pygame.image.save(surface, '{},
START {}, FINISH {}.png'.format(name,
start_time, finish_time))
        print("IMAGE SUCCESSFULLY SAVED")
        write_to_log("IMAGE SUCCESSFULLY
SAVED")
        pygame.draw.rect(win, [0, 0, 0], [0,
```

```
0, WIDTH, HEIGHT])
        surface.fill((0, 0, 0))
        img_num += 1
        start_time = actual_time()
```

Conclusion

This project is a great example of how we can use technology to better understand and visualize natural processes. The resulting images provide us with a glimpse into the lives of plants and the complexity of the stimuli they perceive.

It is important to note that while this project offers a unique insight into the experiences of plants, it does not encompass all aspects of their perception. Plants are capable of perceiving many different types of signals from their environment, including air humidity, the direction of gravity, soil chemistry, electromagnetic fields, and mechanical stress. This project does not attempt to record the plant's complete experience, but rather focuses on three key factors that can be easily measured and visualized.

We have no idea how plants interpret this data, but we know they definitely respond to it. The project is an attempt to translate these experiences into a format we can better understand and visualize.

Recursion in MS Word

November 2022

I have discovered a way to run a recursive process in Microsoft Word. Two things are needed for this—the hyperlink feature and a table. Using the link feature, you can insert the content of Document A into Document B so that if the content is edited in Document A, these changes are automatically reflected in Document B as well. In other words, the content of Document B references the content of Document A. Recursion can then be triggered by creating content that references itself. How can this be achieved? Simply create Document A (let's call it, for example, doc A.docx) and Document B (doc B.docx), create an empty table in Document A, copy it, and insert it as a linked object into Document B. Then, simply copy this newly inserted table from document B and paste it as a linked object into the table of contents in document A. This creates a table that gradually begins to insert itself into itself. Usually, MS Word will start to freeze until it eventually crashes completely. You can see the entire process in the video below.

> Interactive or embedded content: xaE-eYQw4Mw

Pseudopoem

May 2022

All the words in the following poem (at least to the best of our knowledge and with the exception of function words) are pseudowords; that is, they are words that could exist in accordance with the phonotactics of the Czech language—these combinations of sounds are possible in the spoken language—but they have no assigned meaning and are not used. The poem is therefore essentially nonsensical, and any interpretation depends entirely on the reader's imagination, although the distinctly onomatopoeic nature of some of the pseudo-words provides considerable inspiration.

The aim of this experiment was not to create a poetic text of high aesthetic value, but simply to play with the combinatorial potential of the native language. It is remarkable that for each pseudoword, one can reliably identify its part of speech and most of its grammatical categories.

JEZÁPEK

V Městnale se krůcky škvoury
K mochci ďáry vyněraly
Pulstočmý kroch zanářel
Do stupí honkaje voženky
Když jezápek kokeřil pod husečným vachalem koltěním zmán

Hlůmajíce zlanivou vostrčlici

Sníkali garánci garánkám vrůzy
A lačili jezápka zastrožlým přímanem
Zastrožlým z blímného vesepství
Dokřmeným lipačskou vrýnou

Hrů hrů! kafolčil jezápek zpufněle
A holivěl likajky garánkám
Až z hlemuňků kriskaly baťafky
A cuchraly zrepčeným blizalkám
Jalvičné zromky

Although the poem is, in principle, nonsensical, a certain mental image may arise in the reader's mind when interpreting it. We were curious to see what kind of image artificial intelligence would form of it. So we used several available artificial intelligence models (ru-DALL-E, Dream, Deep Daze, starryai – Altair, starryai – Orion, and Night Café), which are capable of generating visual output from text input. Each model is slightly different; some produce photorealistic outputs, some are more abstract, and others are more artistically stylized. They also differ in how well they understand Czech (for example, the ru-DALL-E model understands Czech very well).

Individual segments of this poem were fed to various AI models, and each one generated its own unique series of images based on its interpretation of the individual segments. From each of these series, we then created a video in which the individual images are projected while the corresponding segment of the poem is recited. The Deep Daze model can even record the process of image generation, so the video shows how its image gradually takes shape and becomes more refined.

ruDALL-E

> Interactive or embedded content: CniEMECxcgw

Dream

> Interactive or embedded content: MIS05zpqcWA

starryai (Altair)

> Interactive or embedded content: qsmicN46yBk

starryai (Orion)

> Interactive or embedded content: JDU4Zi6D9rE

Night Café

> Interactive or embedded content: txD8apt8CJo

Deep Daze

> Interactive or embedded content: m06W3aQXKUs

What does the poem evoke in you? Does your impression of the poem match the interpretations provided by artificial intelligence?

Poem author:
Filip Drábek

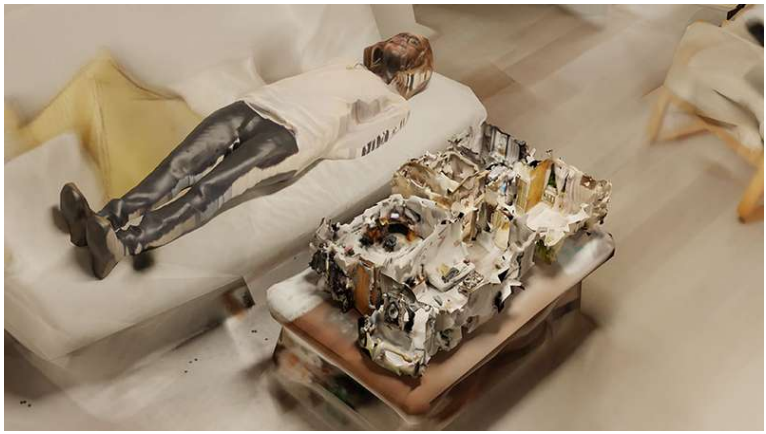
Illustration by:
Vojta Maur

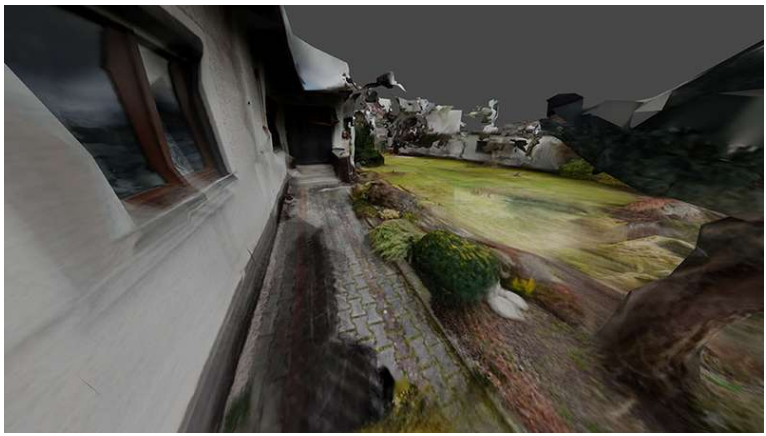
Photogrammetry

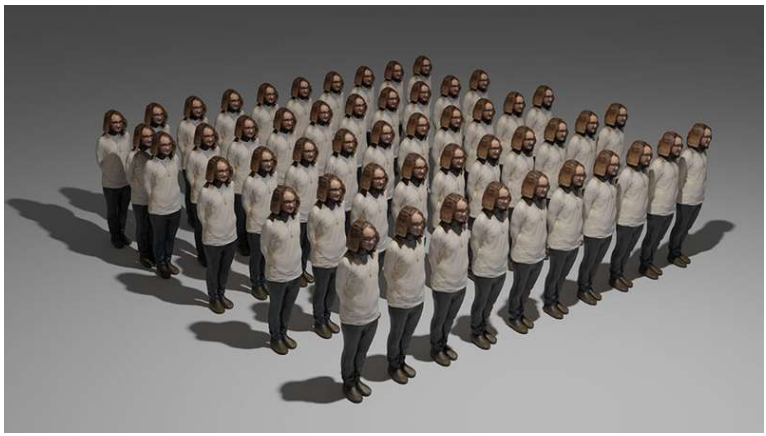
March 2022

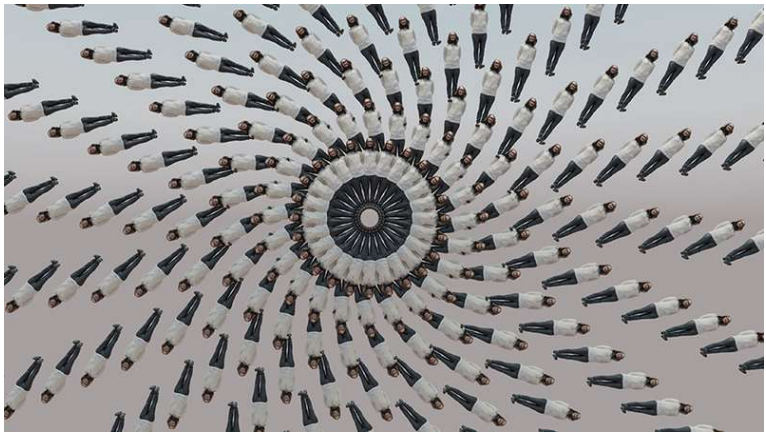
Over the course of several years, I have used photogrammetry to scan various structures. The project functions as a spatial collage of places and beings across time.

Interactive or embedded content: yOPv4hl1DKA









Self-Portrait (Practical Graduation Project)

June 2021

Assignment and defense of the graduation project:

> Interactive or embedded content: autoportret-prakticka-maturitni-prace-dokument-1.pdf

Final portfolio:

> Interactive or embedded content: autoportret-prakticka-maturitni-prace-dokument-2.pdf

Installation of the work in the Nerudovka studios:

HAIR
THE MUSICAL
AUTOPORTRÉT

Evaluation of the project:

nerudovka

Škola:	Střední odborná škola obchodu, užitého umění a designu, Plzeň, Nerudova 33
Obor vzdělání:	82-41-M/17 Multimediální tvorba
Zaměření:	-
Třída:	4. MI
Školní rok:	2020/2021

PRAKTICKÁ MATURITNÍ ZKOUŠKA

(podle vyhlášky 177/2009 Sb., ve znění pozdějších předpisů)

z odborných uměleckých předmětů

Protokol o hodnocení praktické maturitní práce

Jméno a příjmení žáka/žákyně:	Maur Vojtěch
Název práce:	Autoportrét
Vedoucí práce:	MgA. Tereza Šobrová
Oponent práce:	MgA. Marek Hlaváč

Posudek vedoucího práce

Hodnocení práce:

Autoportrét. Téma, ke kterému lze přistoupit velmi originálně a hledat v něm pojem vlastního já. To se díky tomuto tématu pokusil najít také Vojta, který se sám na sebe zaměřil a to do detailu. Rozebral sám sebe na jednotlivé části. Již od začátku jsem věděla, že Vojtovo výstup nebude zcela tradiční a bude nějakým způsobem spojen buď s matematikou, nebo nějakou jinou vědou. To se také ukázalo hned při první konzultaci, když začal vznikat koncept této práce. Rozbor vlastní osobnosti je na jednu stranu lákavé, ale na druhou také velmi náročné. U Vojtovo písemné části, která při vzniku konceptuálního díla je nedílnou součástí chybí hlubší popis a odkazy na předchůdce této problematiky. Každá konceptuální práce musí být podložena kvalitním popisem a odkazem, z čeho umělec vychází, aby divák mohl lépe pochopit děj. Bohužel tato část mi v práci chybí. Žák se hodně zabývá chemickým procesem a popisem pěstování bakterií, které by ale nemusely obsahovat většinovou část, ale měla by být spíše zmíněná hlubší pointa v hledání sám sebe. Tato práce má větší potenciál, ale aby se mohla dotáhnout ještě do finálního konce, potřebovala by větší progres v písemné části, jelikož teď v ní můžeme najít plno otázek, v čem a jak se Vojta ztotožnil s vlastním já, ke kterým nenajdeme odpověď.
Veškeré náležitosti praktické maturity žák splnil včetně pravidelných konzultací. Z pohledu vedoucí práce vím, že Vojta ušel kus cesty a snažil se pojmout toto téma v ojedinělém měřítku.

Navrhovaná známka: **chvalitebně**

Datum: 21. června 2021 Podpis: .....

nerudovka

Škola:	Střední odborná škola obchodu, užitého umění a designu, Plzeň, Nerudova 33
Obor vzdělání:	82-41-M/17 Multimediální tvorba
Zaměření:	-
Třída:	4. MI
Školní rok:	2020/2021

PRAKTICKÁ MATURITNÍ ZKOUŠKA

(podle vyhlášky 177/2009 Sb., ve znění pozdějších předpisů)

z odborných uměleckých předmětů

Protokol o hodnocení praktické maturitní práce

Jméno a příjmení žáka/žákyně:	Maur Vojtěch
Název práce:	Autoportrét
Vedoucí práce:	MgA. Tereza Šobrová
Oponent práce:	MgA. Marek Hlaváč

Posudek oponenta práce

Hodnocení práce:
Vojta Maur, na jehož maturitní práci jsem se těšil, již od druhého ročníku, nám ve své závěrečné práci v oboru fotografie předkládá vlastně práci z biologie. Tak jako vždy Vojtova práce vyvolává kontroverze a podněcuje k diskuzi.
Vojtovo pojetí autoportrétu je čistě materialistické pojetí, chápe pojetí sebe jako souboru buněk. Toto pojetí bychom mohli akceptovat, pokud by jej autor náležitě vysvětlil a obhájil.
Vojtovu práci, stejně jako všechny jeho dosavadní práce chápu jako konceptuální počin.
Ale v tom případě je třeba řádně koncept, myšlenku uvést a zformulovat, obhájit si ji jak před divákem tak odbornou porotou. Co se týká vlastní myšlenky, jak k ní dospěl, z čeho čerpal, nedozvíme se nic. Jsme odkázáni jen na krátký odstavec koncept ve kterém jsou i nepřesnosti. Autor si na začátku klade otázku: „Co jsem Já? Jsem jen uceleným souborem všech buněk, které obsahují moje DNA?" Ale jeho práce není odpovědí ani k žádné odpovědi nedochází.

Na práci si tedy dívat dvojím způsobem.
za prvé: jde jen o fotografické zachycení jednoduchého biologické cvičení, které má s pojmem autoportrét pramálo společného. Nebo za druhé jde o konceptuální výrazový projekt, který autor ne zcela zdařile zdůvodnil. Ani jedno vysvětlení není uspokojivé, proto navrhuji známku dostatečně. Ale jsem zcela otevřen možnost obhajoby studenta.

Navrhovaná známka: **dostatečně**

Datum: 21. června 2021

Podpis: .....

A Brief History of Life on Earth

March 2021

> Interactive or embedded content: 1R8M4nRLPWQ

This video was created as a school project at the Secondary Vocational School of Commerce, Applied Arts, and Design in Pilsen (Nerudova 33).

Each frame of this video represents 200,000 years of Earth's history. This roughly corresponds to the length of time the species Homo sapiens has existed. That is precisely why humans are depicted only in the very last frame of this video.

All visual material used in the video was captured by the author.

Life in Hromnice Lake

January 2021

> Interactive or embedded content: embed

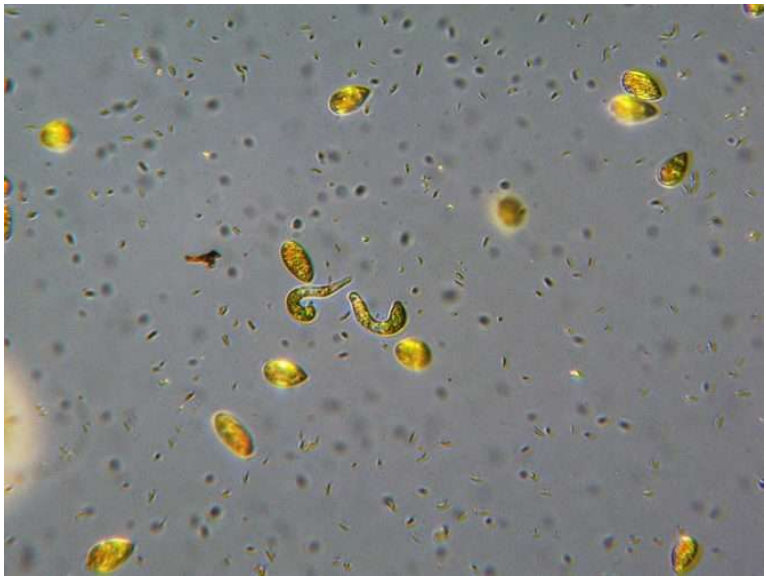
Hromnice Lake is a natural monument in the Plzeň-North District. Due to past slate mining, the lake's water is a weak solution of sulfuric acid (its pH is 2.6–2.9). This is precisely why various sources describe it as having "sterile, lifeless water." Even the official information board states: "… apart from algae, [the water] is completely devoid of life." Given the immense adaptability of life in general, this conclusion seemed unlikely to me. So I decided to go there and investigate it for myself.

On December 19, 2020, I collected a water sample from Hromnické Lake. Multicellular life could be seen in it as soon as the silt settled in the murky water. I found several midge larvae in it.

I also discovered a fly larva, which I was able to identify using a microscope.

I also found several single-celled organisms, such as these two

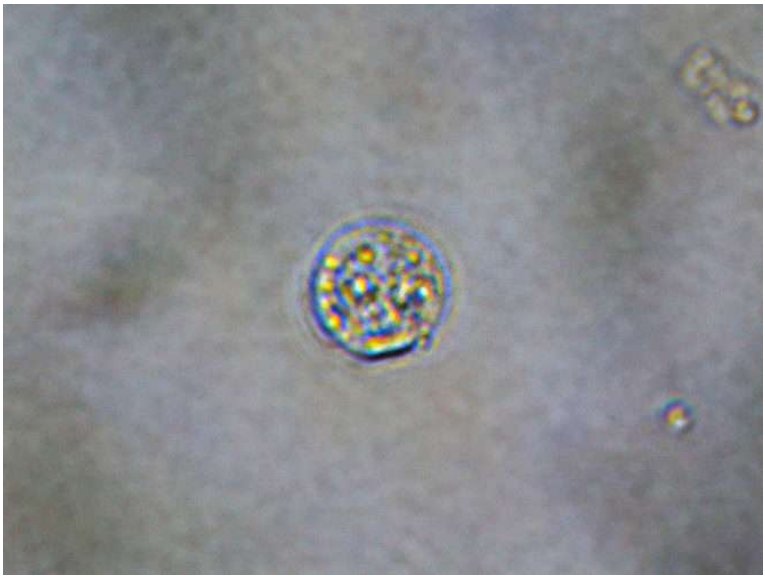
species of dinoflagellates, which were so abundant that they could be seen with the naked eye as a green film on the surface.



> Interactive or embedded content: aoPDRJ_XaxI

> Interactive or embedded content: XbHSxjzpSYE

In the images above, you can also see prokaryotic organisms—cyanobacteria (small, rod-shaped bacteria). Another prokaryotic organism I found in the sample is this bacterium (not yet identified in more detail).



After about two weeks of observation, I even found ciliates in the sample. The first is a rotifer, and the second is an uroleptus.

It is remarkable how many organisms can survive in such an extremely acidic environment. In my opinion, this refutes the claim that the water is sterile. It would therefore be appropriate to update the official information board and other tourist websites that have copied this information from it. However, these are likely far from all the organisms found in Hromnice Lake, and therefore it would be interesting to conduct further water analyses during other seasons, or to collect water samples from different

depths (for example, anaerobic bacteria may live at the bottom due to a lack of oxygen and light).

Reflections on the Limits of Imagination

November 2020

This text was written as a school essay (genre: reflection) on a topic of my choice while studying at the Secondary Vocational School of Commerce, Applied Arts, and Design in Pilsen.

> Interactive or embedded content: uvaha-hranicich-fantazie-dokument.pdf

Enhanced Perception of Luminance Differences

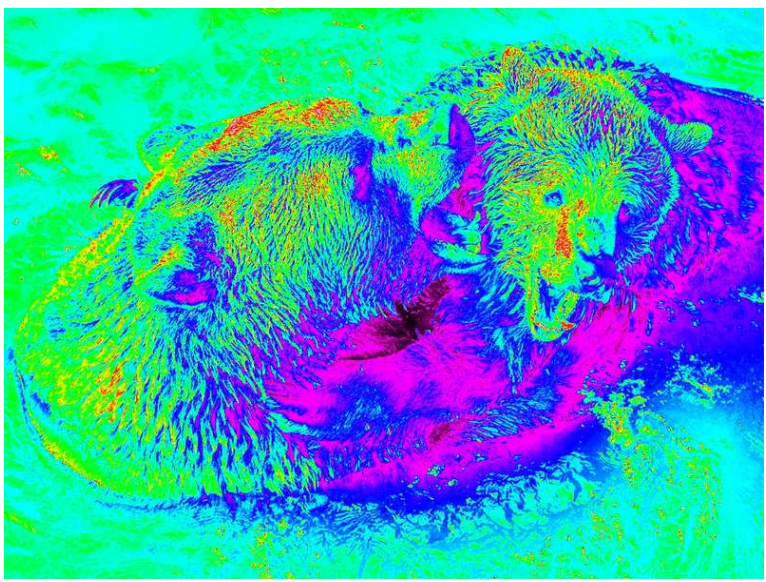
October 2020

What if our eyes were capable of perceiving even subtle differences in brightness? How different would our view of the world be as a result? Is there a way to visualize this? Yes, I think there is. I will now try to describe how this can be achieved.
So let's look at how the human eye perceives a black-and-white photograph.

We can say that we perceive the darkest areas as black and the lightest areas as white. Everything in between consists of various shades of gray. This spectrum can be represented as follows:

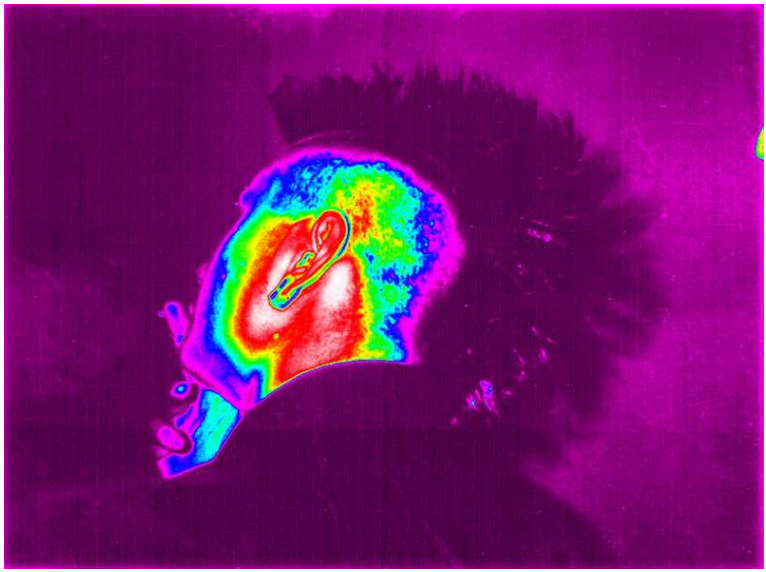
Since our eyes aren't very good at perceiving small differences between two shades of gray, I decided to add the entire color spectrum as intermediate steps to this gradient. The resulting gradient then looks like this:

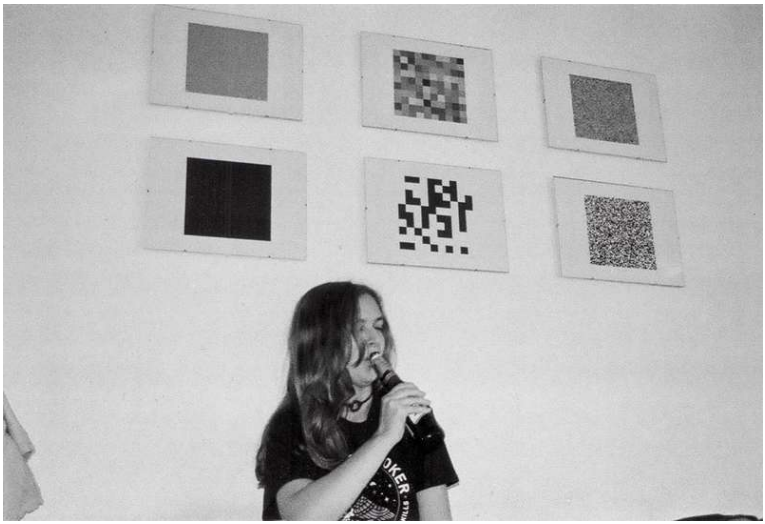
Black areas remain black, white areas remain white, but the gray gradient between them is now enriched with colors. Below is an example of what a photo of a bear would look like after applying this new gradient.

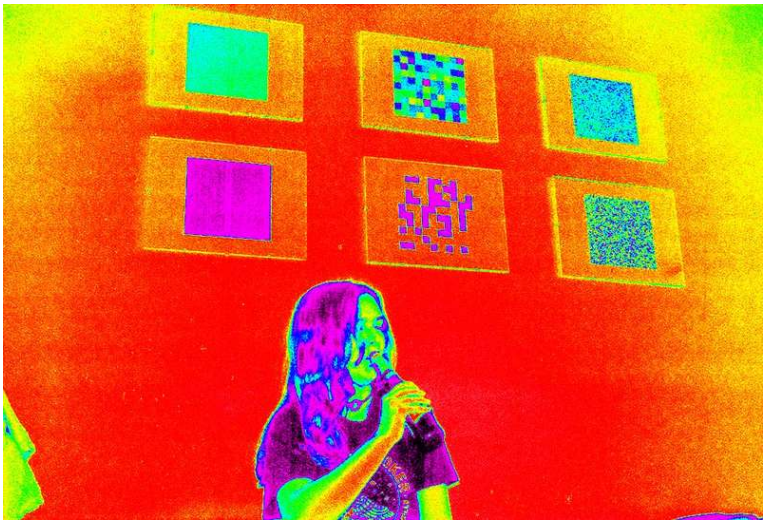


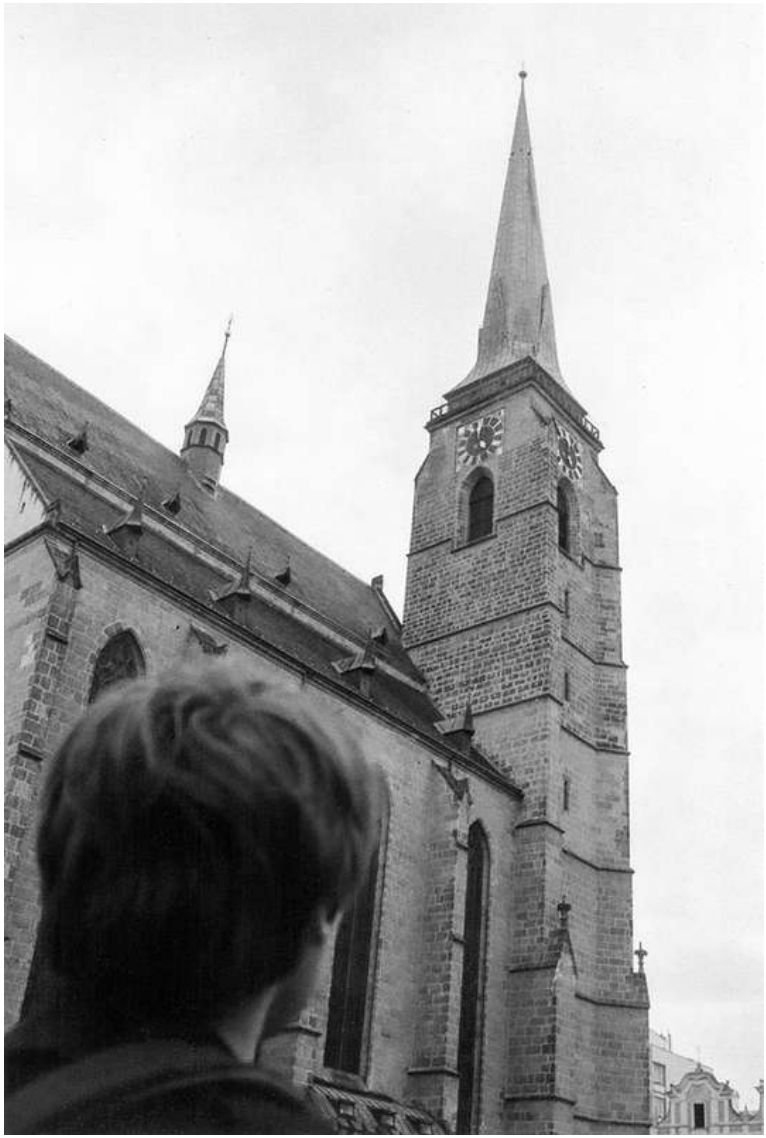
The photo reveals details that would be lost in a normal black-and-white photo. I also experimented with this gradient on analog

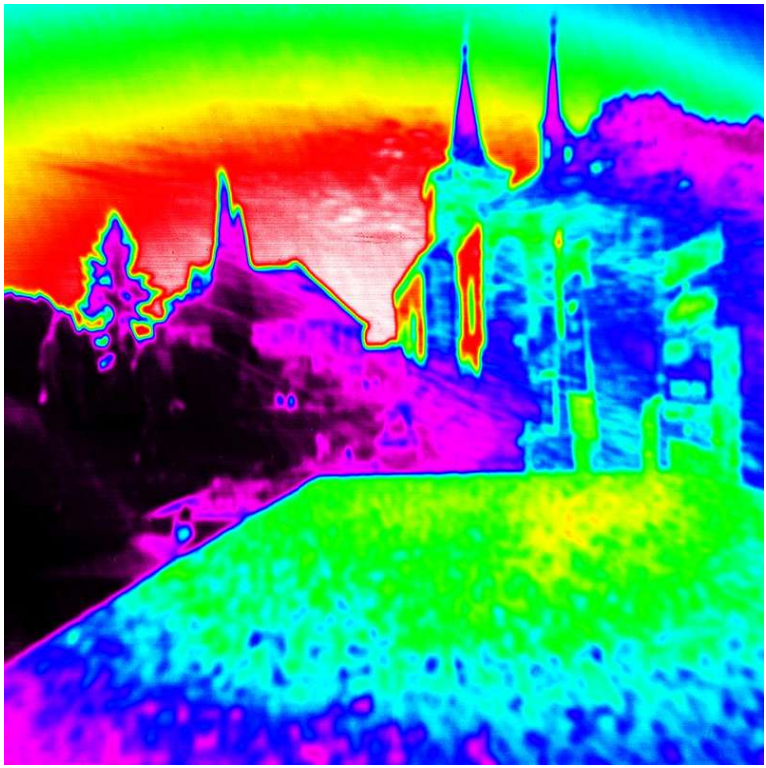
photos (see below). For comparison, the original black-and-white photo is always shown first.







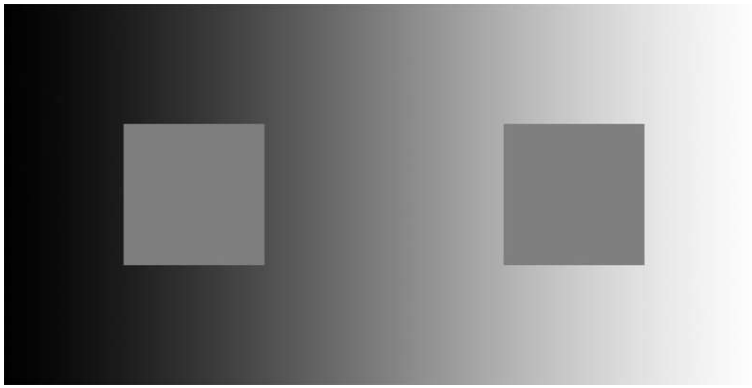




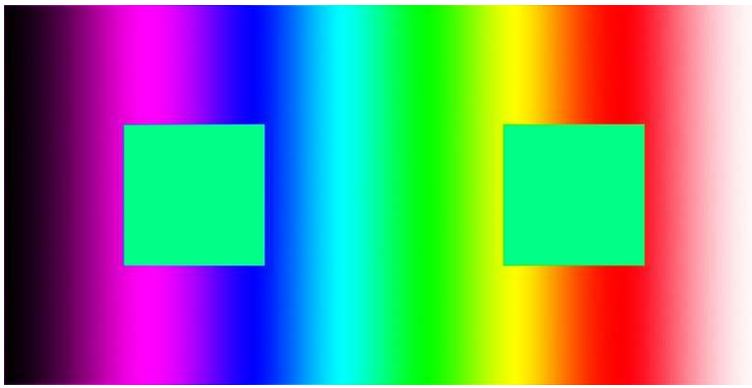
I was curious to see if this gradient could be used in drawing to achieve more precise shading. That’s why I tested it on one of my older drawings:

I decided to further test this gradient on optical illusions based on

our imperfect perception of differences in brightness. Here's one example of such an illusion:

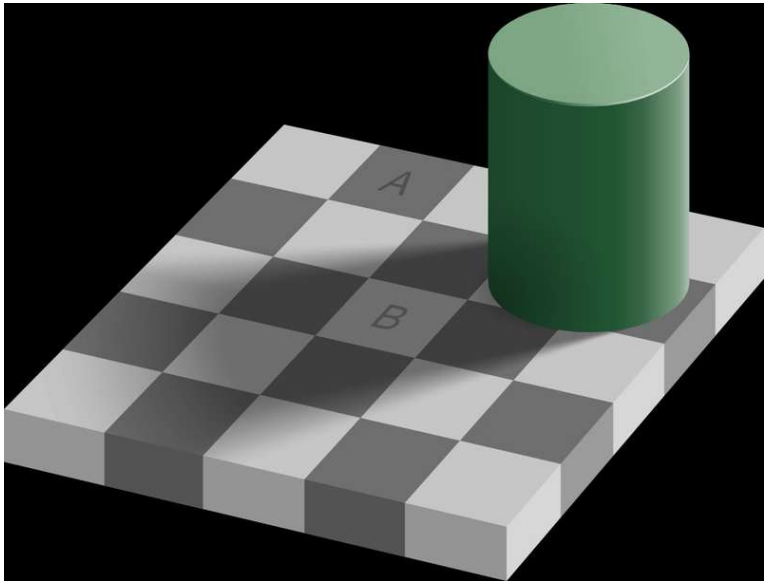


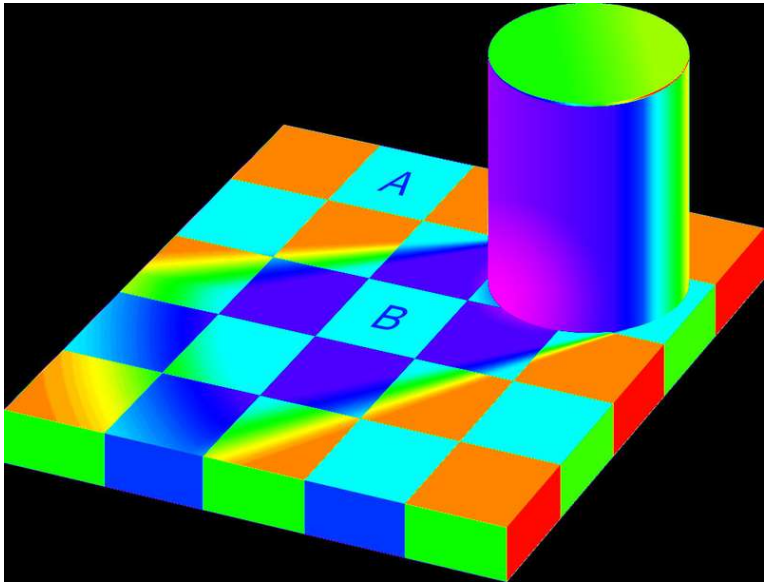
Just as you'd expect, both squares are identical. Yet to the human eye, one appears lighter. If I apply this gradient to the illusion above, it will become much clearer that the squares are the same shade. The illusion is thus disrupted and ceases to be an illusion.



Another similar illusion is the Checker Shadow Illusion. The principle is the same: areas A and B are the same shade, even though they don't appear to be. When we apply the gradient to it,

this becomes obvious.





Theorems of Life

October 2020

An Instagram page featuring photographs of life on Earth at various scales.
www.instagram.com/vojta_maur_zivot

vojta_maur_zivot
POLARIZACE

Computer with Random Inputs

September 2020

For the purposes of this discussion, I created a program in Python that provides my computer with random inputs. It can, for example, move the mouse cursor, click, and press any keys on the keyboard—all completely at random. Let's call it OPICE-1 (after the infinite monkey theory). Here is the source code, though it's not necessary to understand it:

```
import pyautogui
import random
import time
import sys

sys.setrecursionlimit(100000)
time.sleep(5)

def random_inputs():

    AllKeys = ['\t', '\n', '\r', ' ', '!',
'"', '#', '$', '%', '&', "'", '(',
        ')', '*', '+', ',', '-', '.', '/',
'0', '1', '2', '3', '4', '5', '6', '7',
        '8', '9', ':', ';', '<', '=', '>',
'?', '@', '[', '\\', ']', '^', '_', '`',
        'a', 'b', 'c', 'd', 'e','f', 'g',
'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o',
```

```
        'p', 'q', 'r', 's', 't', 'u', 'v',
'w', 'x', 'y', 'z', '{', '|', '}', '~',
        'accept', 'add', 'alt', 'altleft',
'altright', 'apps', 'backspace',
        'browserback', 'browserfavorites',
'browserforward', 'browserhome',
        'browserrefresh', 'browsersearch',
'browserstop', 'capslock', 'clear',
        'convert', 'ctrl', 'ctrlleft',
'ctrlright', 'decimal', 'del', 'delete',
        'divide', 'down', 'end', 'enter',
'esc', 'escape', 'execute', 'f1', 'f10',
        'f11', 'f12', 'f13', 'f14', 'f15',
'f16', 'f17', 'f18', 'f19', 'f2', 'f20',
        'f21', 'f22', 'f23', 'f24', 'f3',
'f4', 'f5', 'f6', 'f7', 'f8', 'f9',
        'final', 'fn', 'hanguel', 'hangul',
'hanja', 'help', 'home', 'insert', 'junja',
        'kana', 'kanji', 'launchapp1',
'launchapp2', 'launchmail',
        'launchmediaselect', 'left',
'modechange', 'multiply', 'nexttrack',
        'nonconvert', 'num0', 'num1',
'num2', 'num3', 'num4', 'num5', 'num6',
        'num7', 'num8', 'num9', 'numlock',
'pagedown', 'pageup', 'pause', 'pgdn',
        'pgup', 'playpause', 'prevtrack',
'print', 'printscreen', 'prntscrn',
        'prtsc', 'prtscr', 'return',
'right', 'scrolllock', 'select',
```

```
'separator',
        'shift', 'shiftleft', 'shiftright',
'sleep', 'space', 'stop', 'subtract', 'tab',
        'up', 'volumedown', 'volumemute',
'volumeup', 'win', 'winleft', 'winright',
'yen',
        'command', 'option', 'optionleft',
'optionright']


    while True:
        rnd_A0 = random.randint(0, 1)
        rnd_B0 = random.randint(0, 2)
        rnd_C0 = random.randint(0, 4)

        if rnd_B0 == 0:

pyautogui.press(AllKeys[random.randint(0,
len(AllKeys)-1)])

        elif rnd_B0 == 1:
            multi_key = []
            for i in range(0,
random.randint(0, 5)):

multi_key.append(AllKeys[random.randint(0,
len(AllKeys)-1)])
            pyautogui.hotkey(*multi_key)

        else:
```

```
            if rnd_A0 == 0:

pyautogui.moveTo(random.randint(0,
pyautogui.size()[0]), random.randint(0,
pyautogui.size()[1]), duration=.2)

                if rnd_C0 == 0:
                    pyautogui.click()

                elif rnd_C0 == 1:
                    pyautogui.doubleClick()

                elif rnd_C0 == 2:

pyautogui.click(button='right')

                elif rnd_C0 == 3:

pyautogui.click(button='middle')
            else:

pyautogui.dragTo(random.randint(0,
pyautogui.size()[0]), random.randint(0,
pyautogui.size()[0]), duration=.2)

        time.sleep(.1)



def ignore_errors():
```

```
    try:
        random_inputs()
    except Exception:
        ignore_errors()



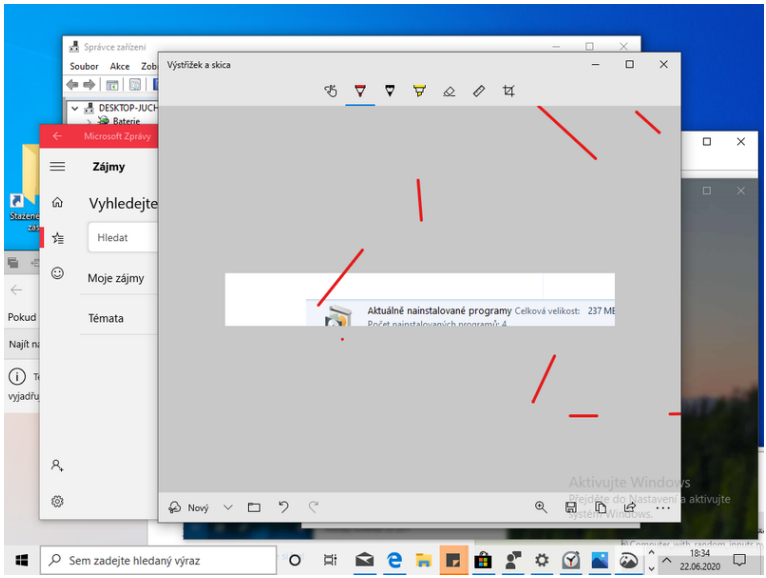
ignore_errors()
```

To illustrate, I recorded OPICE-1 while it was running, creating the first video below. Since it ran for about an hour, I sped up the first video many times over to create the second video, so that viewers don't have to watch the entire first video but can still see what kinds of actions the OPICE-1 program likely performed.

> Interactive or embedded content: xZp9WpHKVKA

> Interactive or embedded content: fUh24r03e7o

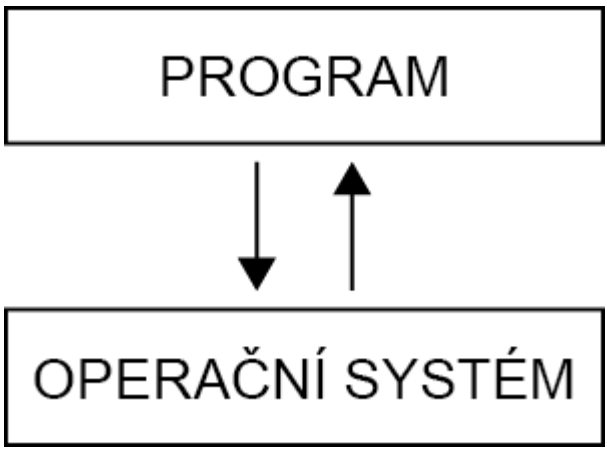
As you can see in the videos, at a certain point, the OPICE-1 program begins to rewrite its own code. The entire video ends with the operating system freezing and then crashing. As I continued to experiment with it, the OPICE-1 program did several other remarkable things. For example, it opened the Bing search engine and typed "9/11" into it, took a screenshot, restarted the computer, installed a card game, or "drew" something abstract (see the image below).



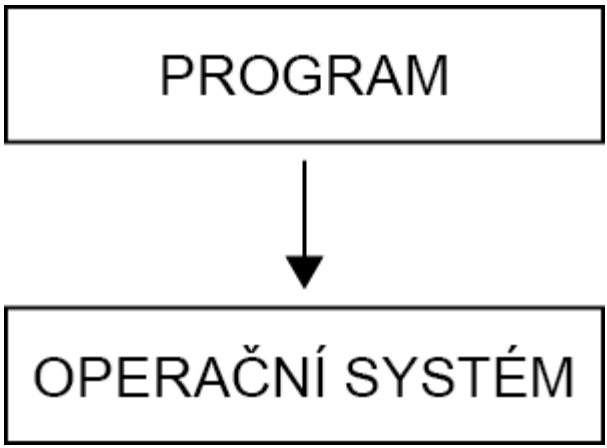
So it can be said that if the OPICE-1 program were to run for an unlimited amount of time, it could theoretically do EVERYTHING (by “EVERYTHING” I mean perform all operations that a computer allows, which is why I’m writing it in all caps), what could a user of the same computer do? After all, it could theoretically create a folder on the desktop, open a web browser and search for something, open Word and write this essay, write any book, create electronic music, write a program in Python, write itself, and so on. It could also shut itself down, shut down the entire computer, or corrupt its own code. And this is precisely where it becomes clear that it’s impossible for the OPICE-1 program to do EVERYTHING once it’s running—after all, it would also have to take the step that would stop it. All right, so what if it did EVERYTHING without taking the step that would cause it to stop, and then performed that step last? While this is highly unlikely, it’s not impossible. Unfortunately, there’s still one catch—there are many steps that lead to its termination. If it performed

one of them, it wouldn't be able to perform any subsequent steps, and that contradicts the original assumption that the OPICE-1 program can do EVERYTHING. Therefore, this program cannot do EVERYTHING.

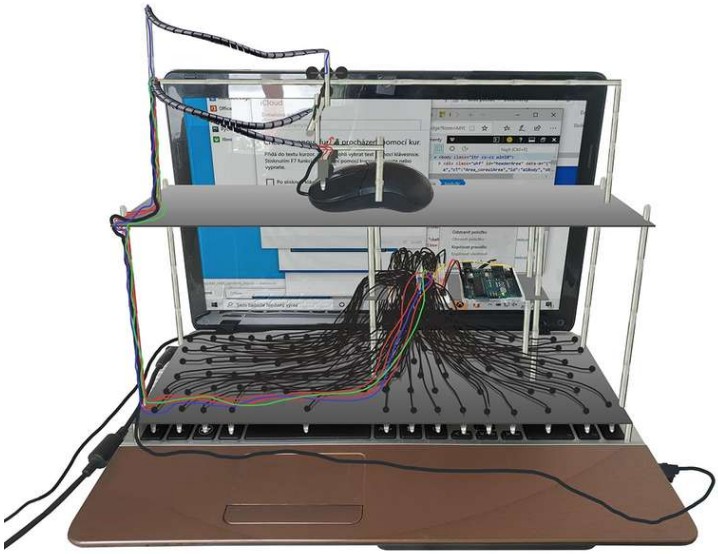
One more solution comes to mind. The OPICE-1 program cannot do EVERYTHING because it is a subsystem of the operating system. When the operating system shuts down due to the program, the program itself also stops working. Here is a simple diagram illustrating the relationship between the operating system and the OPICE-1 program. The arrows indicate "affects."



The problem, then, is that the operating system affects the program. Would it therefore be possible to "break" this loop and create a program that is completely independent of the operating system? A program that affects the operating system, but at the same time cannot be affected by the operating system itself? A program whose diagram looks something like this?



In other words—is there a similar program that can handle EVERYTHING, but cannot stop itself (or rather, this isn't even possible due to the very nature of its design)? We'll call such a program OPICE-2. In the following steps, I'll try to explain a method that, while a bit absurd and certainly one that could be devised more elegantly, is probably the most suitable for illustrating my idea. I've tried to visualize what such an operating-system-independent program might look like.



The lower section of this device is used to mechanically press the keys on the keyboard. The upper level, in turn, is used for mechanically moving the mouse and clicking. All of this is connected to a simpler computer (e.g., an Arduino, Raspberry Pi, etc.), which can be seen on the middle level. Our OPICE-2 program is running on this computer. It is important to note that only the mouse is connected to the laptop—nothing else. Therefore, the simpler computer must not be connected to the laptop in any way, and communication between them must remain strictly one-way (the simpler computer controls the laptop, not the other way around). Furthermore, the simpler computer on which our OPICE-2 program code is stored should not be connected to the internet, since the internet is, for the purposes of this discussion, one big maze of tangled paths, and if our device were to venture into them, no one could accurately predict the consequences. For example, using the internet and the laptop, our simpler program could somehow connect to itself and shut

down.

This device appears to be unable to act on itself and thus shut itself down. But is that really the case? Could a situation arise in which the device would shut itself down? One such situation comes to mind: Using the internet, the device reports a bomb to the appropriate authorities at its current location, so a bomb squad arrives and defuses it. This situation is, of course, highly unlikely, but again, not impossible.

Wouldn't it be enough, then, to simply disconnect the laptop from the internet? That would certainly prevent the situation described above, but it wouldn't help in this case either. I can think of other situations in which the device could indirectly affect itself. Here's one possible scenario: A person who knows nothing about the device walks past the laptop. Just as they're looking at the device, the message "TURN ME OFF" appears on the screen. This message (or another, far more forceful one) could convince the person to actually turn the device off.

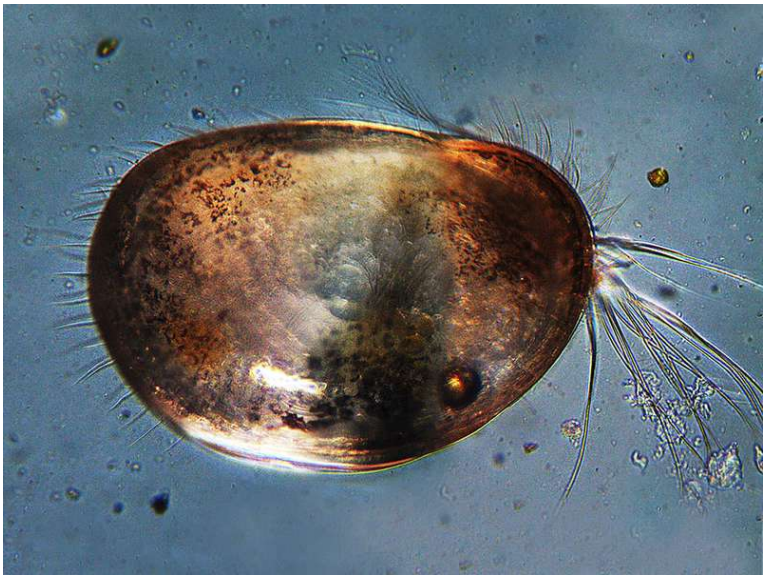
All right, but what about simply ensuring that the device is incapable of any output (no monitor, no speakers, etc.)? That way, the device could not influence the outside world, which in turn could not influence the device and cause it to shut down. That sounds reasonable, but it's not very realistic. The device could still communicate in various ways, such as by turning the keyboard backlight on and off, through differences in noise when the laptop is on versus off, or even through differences in processor temperature. I don't think it's possible to create a device that is part of this world and yet doesn't interact with it in some way.

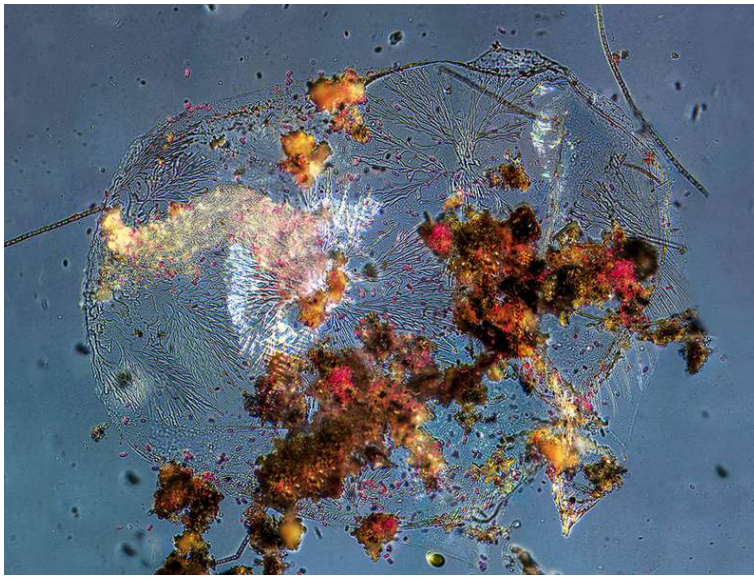
On the other hand, one could argue that a computer user could also destroy themselves simply by pressing keys and clicking the mouse. For example, they could use the dark web to order their own murder, and so on…

I'll conclude this reflection by stating that if a program were to interact with the outside world in any way, it could ultimately shut itself down—even though, in theory, the program is capable of doing everything a user could do.

The Cyclical Hierarchy of Life

August 2020





The first image shows a copepod, a tiny aquatic crustacean about 1 mm in size. It feeds on algae, yeast, bacteria, etc. It is therefore what is known as a filter feeder.

In the second image, this food chain hierarchy has been reversed —we can see PSB (purple sulfur bacteria) and slime molds feasting on the dead shell of the copepod. Surprisingly, this scene of death and decomposition does not seem repulsive or terrifying at all; on the contrary, I found it beautiful and fascinating. In my opinion, the appearance of the second image contrasts with its inner meaning, and perhaps it is precisely this tension that adds to its impact.

Another reason why this work makes such a strong and personal impression on me is the fact that I, too, will one day end up exactly the same way as this bivalve.

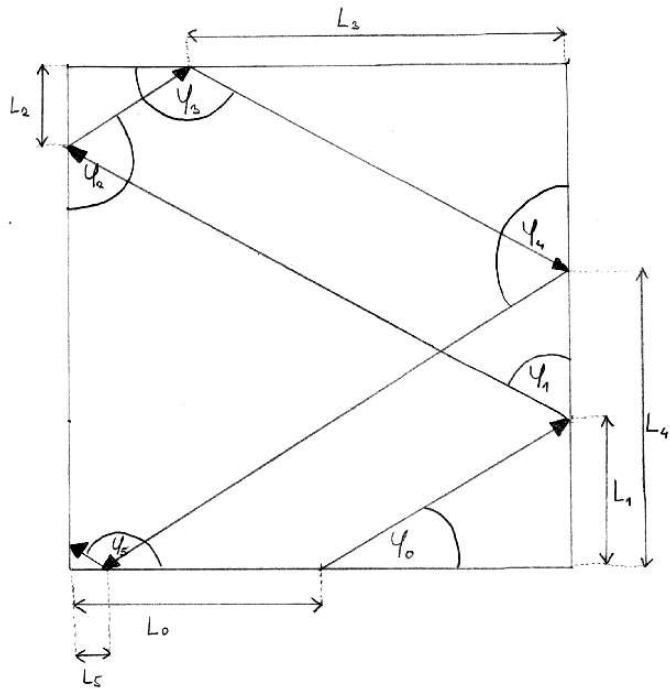
Reflection and Space

May 2020

In this work, I explored reflection, its visualization, and its mathematical model. I started with a simple problem—a ball in a square. This “ball” is actually a mathematical vector, i.e., a dimensionless point that has a position and direction, but for simplicity’s sake, we’ll continue to refer to it as a ball. For simplicity, I also ignored air resistance, energy loss during the bounce, and so on. The ball is thus thrown into the square from an initial position and angle. When it hits the side of the square, it bounces off. As it moves, it also leaves a trajectory behind it. You can see this simulation in the interactive window below. You can experiment with it and change the initial angle to different values.

> Interactive or embedded content: odraz-a-prostor-2D.html

While some initial angle values produce very simple trajectories that loop back on themselves (at angles of 45° and 90°), other values produce very chaotic trajectories. The question is whether, after a sufficient number of bounces, even these trajectories will close in on themselves and begin to simply trace their own paths. As can be seen in the diagram below, each bounce can be assigned an angle $\varphi(n)$ and a distance $L(n)$ from the left edge of the side of the square where the ball landed.



Each side is 1 unit long. The initial parameters are therefore the angle φ(0) and the distance L(0) from the left edge of the side. A ball released in this way will then bounce, yielding pairs of numbers φ(1) and L(1), then φ(2) and L(2), and so on…
Therefore, if we want to prove whether the trajectory will close at a given initial angle and distance from the left edge of the side, we are interested in whether there exist numbers φ(n) and L(n) such that φ(0) = φ(n) and L(0) = L(n). In other words, we are interested in whether the ball will eventually return to the point from which it was released and bounce off it at the same angle.
To better understand what happens mathematically during these bounces, I wrote an algorithm that takes two parameters—φ(n) and L(n). The algorithm then precisely calculates the values of

φ(n + 1) and L(n + 1), that is, the values for the next bounce.

```
POKUD φ(n) < 90°:

            POKUD tan(φ(n)) * (1 − L(n)) <
1:
                        φ(n + 1) = 90° −
φ(n)
                        L(n + 1) = tan(φ(n))
* (1 − L(n))

            POKUD tan(φ(n)) * (1 − L(n)) =
1:
                        φ(n + 1) = φ(n)
                        L(n + 1) = 0

            POKUD tan(φ(n)) * (1 − L(n)) >
1:
                        φ(n + 1) = 180° −
φ(n)
                        L(n + 1) = 1 −
(tan(90° − φ(n)) + L(n))

POKUD φ(n) = 90°:

            φ(n + 1) = φ(n)
            L(n + 1) = L(n)

POKUD φ(n) > 90°:
```

```
            POKUD tan(180° -  φ(n)) * L(n) <
1:
                        φ(n + 1) = 270° -
φ(n)
                        L(n + 1) = 1 -
(tan(180° - φ(n)) * L(n))

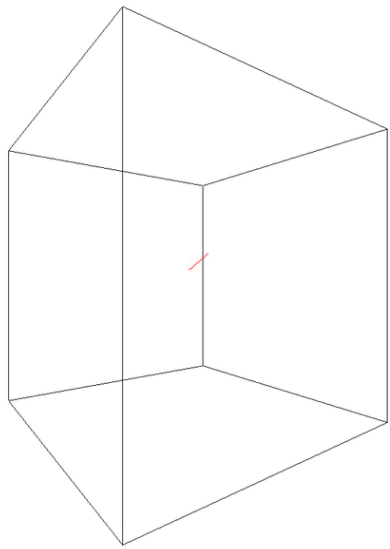
            POKUD tan(180° -  φ(n)) * L(n) =
1:
                        φ(n + 1) = φ(n)
                        L(n + 1) = 1

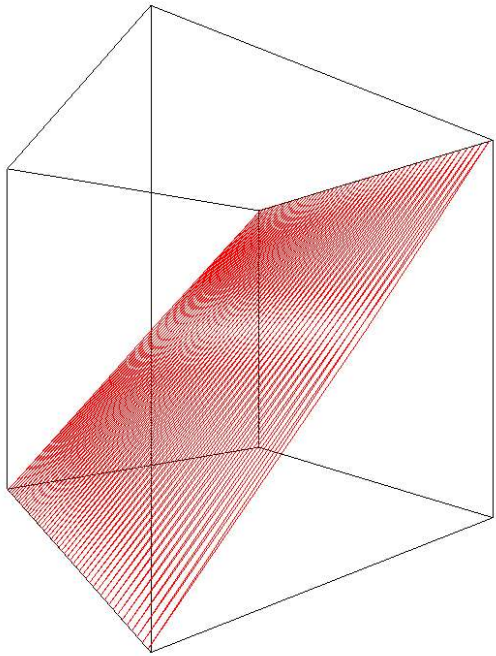
            POKUD tan(180° -  φ(n)) * L(n) >
1:
                        φ(n + 1) = 180° -
φ(n)
                        L(n + 1) = 1 +
tan(150° - φ(n)) - L(n)
```

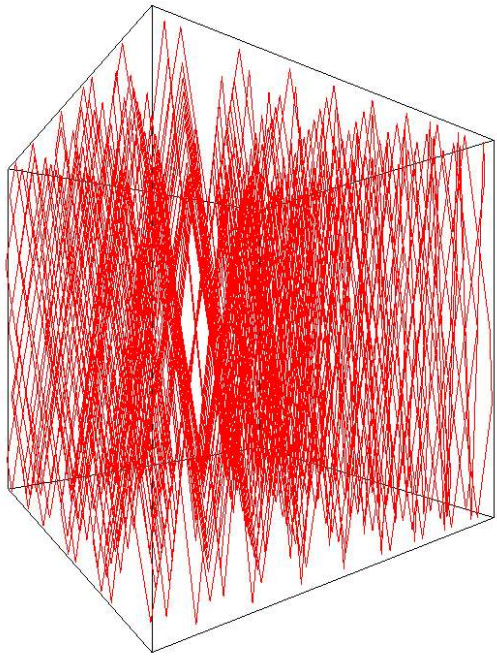
So all we need to do is feed just two basic parameters (the initial angle and position) into the algorithm, and it will give us the two parameters for the next step. We can gradually add these pairs of numbers to a set of numerical sequences (let's call this set M). The question "Will the ball's trajectory ever close?" is logically equivalent to the question "Is the sequence M periodic?" Unfortunately, I do not yet know how to answer this question.

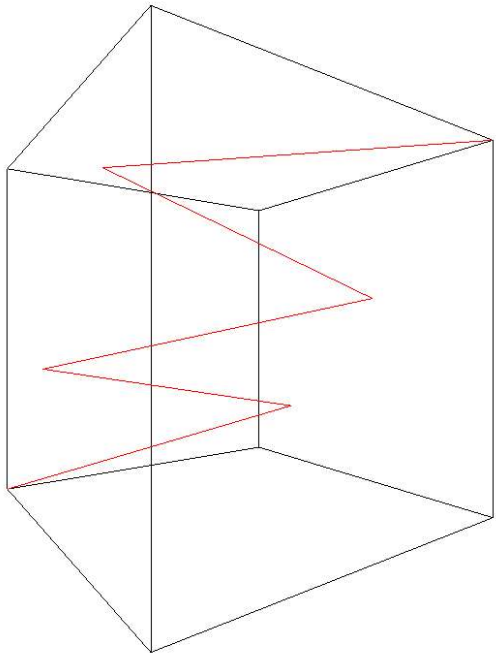
I decided to continue working on the bounce simulation and extend it to 3D. In this simulation, the ball bounces off the walls of a cube in three-dimensional space. Unfortunately, this simulation

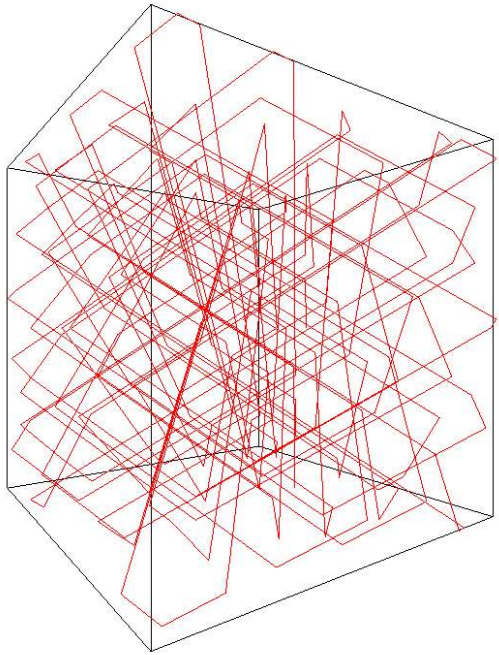
cannot be used on the web as an interactive frame. Therefore, only the code and the output in the form of images are provided here.

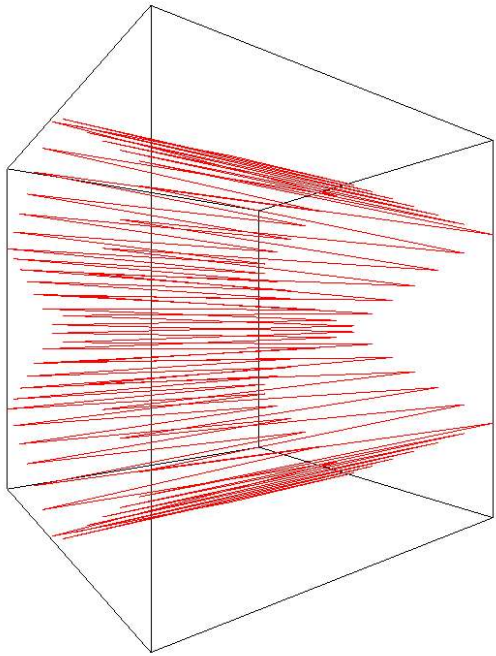


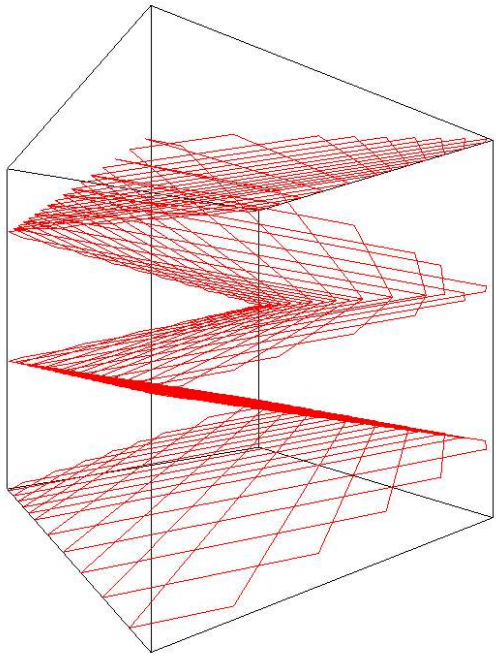


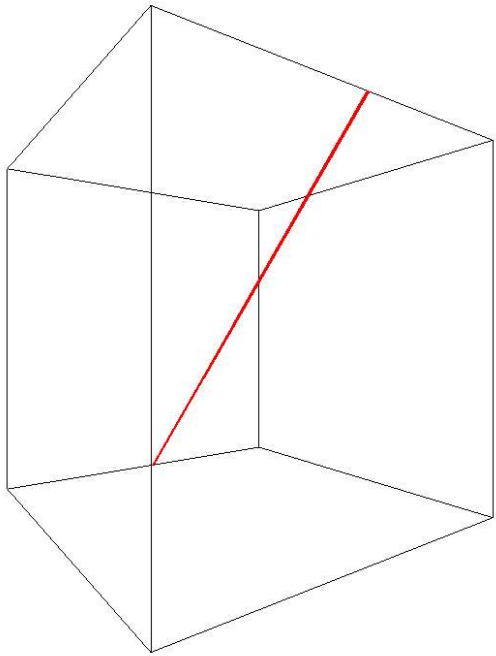


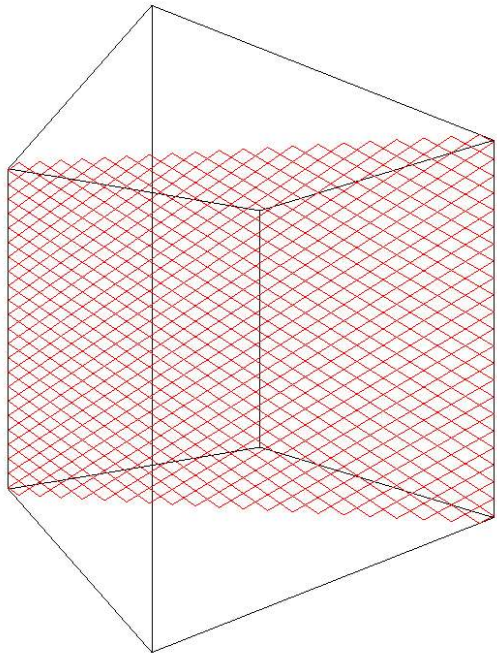


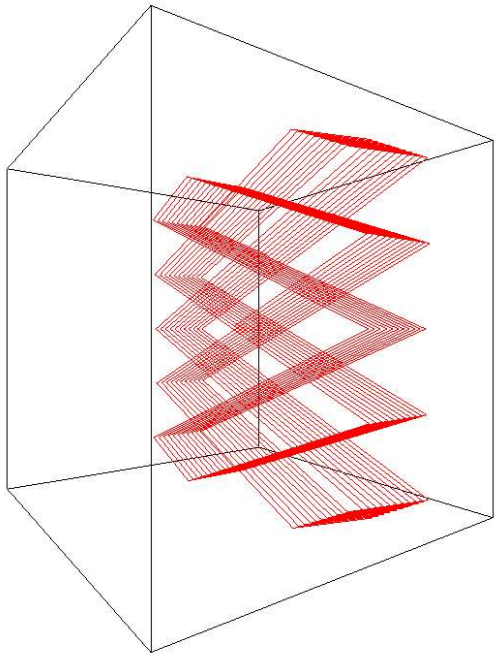


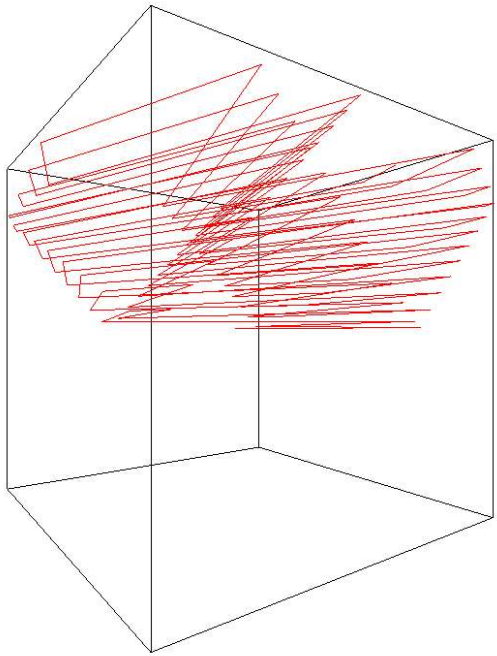


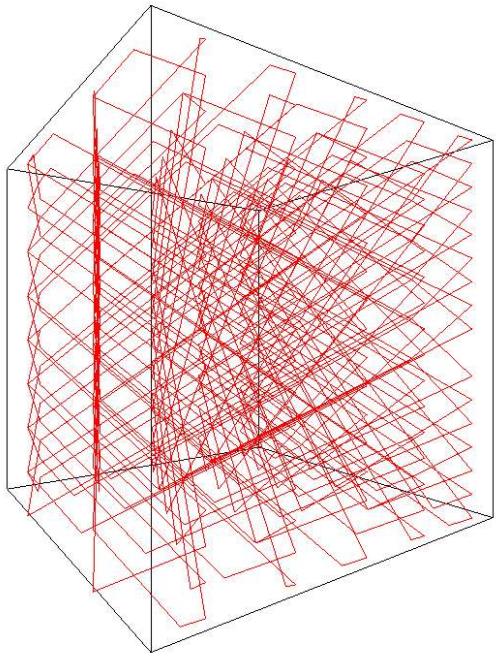


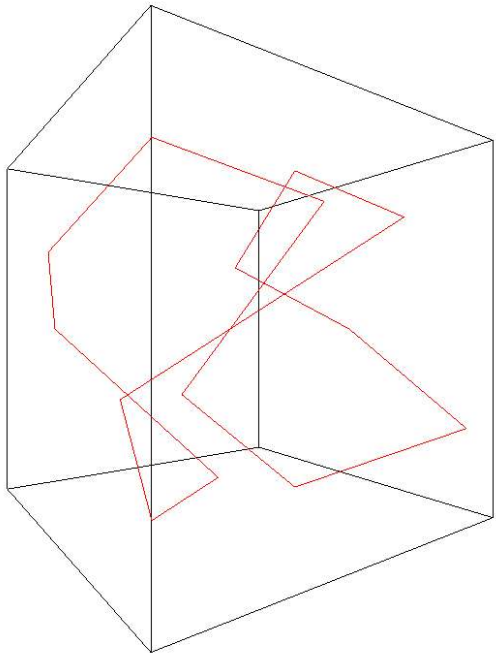


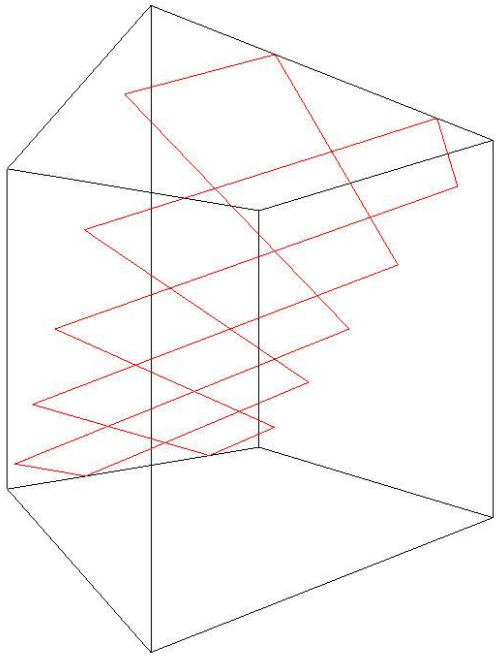


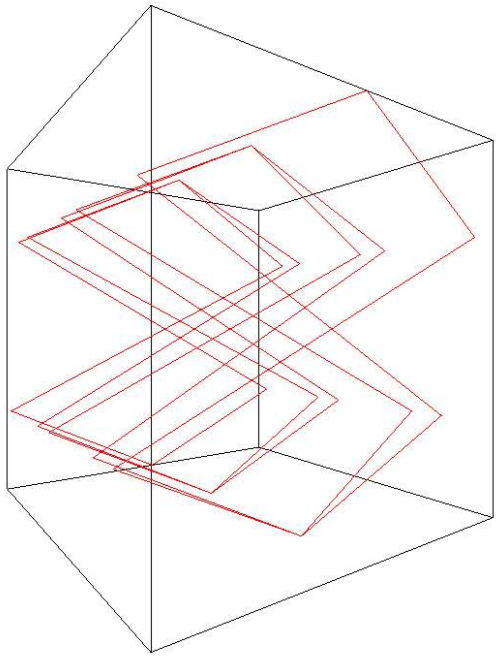


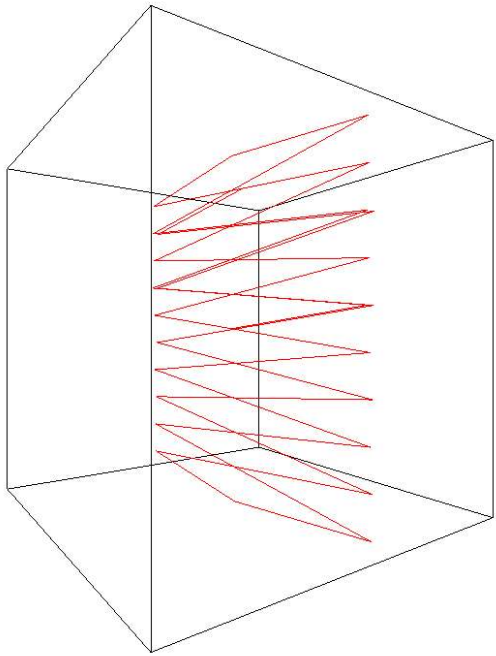












The various images above are generated by releasing the ball from the center of the cube in different directions. As you can see, this initial direction significantly affects the shape of the trajectory. Some trajectories close in on themselves after just a few bounces, while others appear rather chaotic. Just as with the 2D simulation, it is quite difficult to determine whether even very chaotic-looking trajectories will eventually close in on themselves after a sufficient number of bounces and simply trace each other from that point on. Below is an interactive demo I created for this 3D simulation.

> Interactive or embedded content: odraz-a-prostor-3D.html

Myths About the Fibonacci Sequence

April 2020

Perhaps the most well-known concept in popular mathematics is the Fibonacci sequence. This is due in part to its elegant simplicity, but also to its application in several non-scientific fields, such as music or art. Some people attribute almost magical powers to it and claim that this sequence “rules the universe” or that it is “God’s fingerprint.” Unfortunately, however, misinformation about it is spreading on the internet, which I will address here. We are all probably familiar with this sequence, but I will explain it in the introduction just to be sure.

The Fibonacci sequence is defined by the formula: **F(0) = 0, F(1) = 1,**
F(n) = F(n - 1) + F(n - 2).

This formula can be easily explained in words. The first two terms of this sequence are the numbers 0 and 1 (hence F(0) = 0 and F(1) = 1). Next, we add these two terms (i.e., 1 + 0) to get the third term of the sequence, which is the number 1. The sequence thus looks like this: 0, 1, 1. Next, we add the last two terms again (i.e., 1 + 1) to get the number 2. This gives us the sequence 0, 1, 1, 2. We add the last two terms again (i.e., 2 + 1) and add the resulting number back to the sequence. We continue this process indefinitely. The first few terms of this sequence look like this: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, …

This sequence has beautiful mathematical properties. For example, if we take two consecutive numbers and calculate their ratio F(n + 1) / F(n), we obtain an approximation of the mathematical constant φ, i.e., the golden ratio. For example, 144 / 89 = 1.6179775280898876404494382022472, which is very close to the golden ratio. The larger the numbers we choose, the more accurate the approximation will be. Since φ is an irrational number (it has an infinite non-repeating decimal expansion), this approximation can never be absolutely exact.

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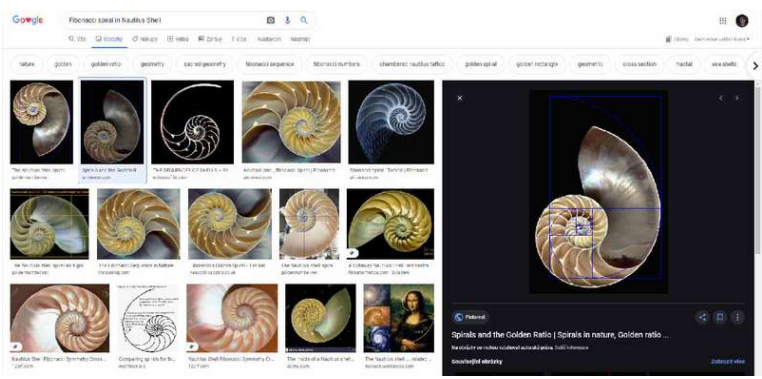
This sequence can also be used to construct the very famous golden spiral. All you need to do is create a 1x1 square, then another 1x1 square, followed by a 2x2, 3x3, 5x5, 8x8 square… Then simply draw a quarter circle inside each square. This process is well illustrated in the animation below.

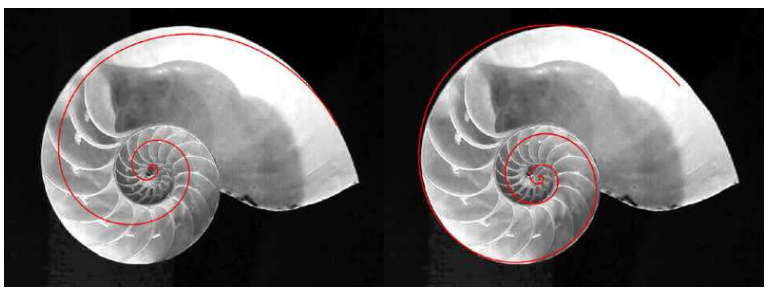
Here we can see the very first myth. I often see images online of a nautilus shell that is supposedly shaped like a Fibonacci spiral. But that is nonsense, and as is immediately apparent from the images below, this spiral does not correspond at all to the shape of this creature's shell.

Source: Google Images



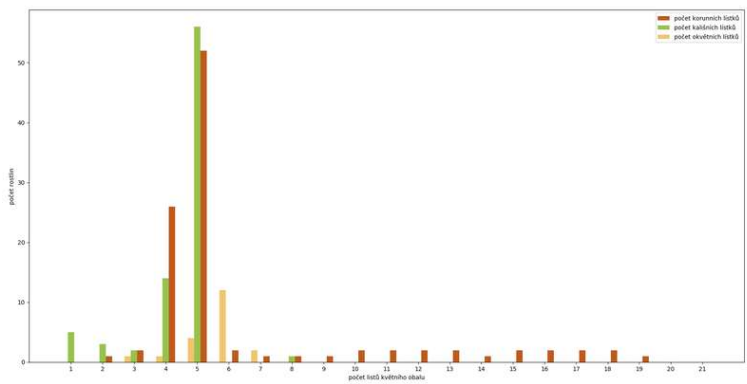
Source: YouTube

In reality, the nautilus does not have a shell shaped like a Fibonacci spiral (image on the left), but rather a logarithmic spiral (image on the right).



Another myth is the claim that the number of petals on plants is determined by the Fibonacci sequence. Proponents of this myth argue that while there are indeed flowers with a number of petals different from the terms of the Fibonacci sequence, they claim there are very few of them. I decided to test this claim, so I took a plant atlas and counted the number of petals on nearly every plant (I omitted some flowers because, for example, they have both male and female flowers with different numbers of petals or lack petals entirely). From a botanical point of view, however, the term “petal” is quite imprecise. What is colloquially called a petal is referred to in botany as **a floral envelope**. This is further divided into **a corolla lobe** and **a calyx lobe** (see the image below). Sometimes these two lobes are fused together, forming a single so-called **petal**.

So, in the Excel spreadsheet, I listed the number of **corolla petals** and **sepals**—or **petals**—next to the names of the flowers. Out of the 120 plants listed in the book Pocket ATLAS OF PLANTS by Albert Pilát and Otto Ušák, I entered 104 plants into the Excel spreadsheet. Using the Python programming language, I then created the graph below from this data.



As can be seen from it, flowers most often have 5 perianth segments, which just happens to be a number in the Fibonacci sequence. But that is all, since the second most common case is the number 4, and that is not a number in the Fibonacci sequence. If this claim were true, it would be evident in the graph. The myth is thus debunked; the Fibonacci sequence has nothing to do with the number of petals in a flower's perianth.

These two myths are certainly not the only ones, but my goal was not to debunk them all, but rather to point out that some things you can find online about the Fibonacci sequence and the golden ratio are nonsense, and it's always important to think them through first. Of course, I do not mean to cast doubt on the entire Fibonacci sequence; the truth is that it has truly remarkable

properties and, in some cases, does indeed occur in nature and in various branches of mathematics. However, these myths and misinformation slightly detract from its beauty.

Metaprogram

April 2020

For this discussion, I created a program that can generate all possible Python programs and then run them. We will call it a metaprogram—that is, a kind of “super-program.” It can be described simply by the following rules:

1. Create a list of all characters used by the Python programming language.
2. n = 1
3. From this list, create all possible permutations of n symbols
4. Run each of these permutations as a program, and if no error occurs, save that permutation
5. n = n + 1
6. Return to step 3

If I had to describe what it does in words, I would say that the program creates a folder containing all possible programs that can be run without an error message. It starts with the shortest program consisting of a single symbol (hence n = 1) and generates all permutations. It then runs them and saves the programs that do not produce an error message. Such an error message can occur very easily if a character permutation is run that does not make sense in the Python language. For example, a program whose content is print('Hello') makes sense in Python, so this program runs without an error message and its output is the word "Hello." However, if the program's content is, say, YFag##A7, the program's output will be an error message (most

likely of the "SYNTAX ERROR" type).

This program should therefore be able to systematically create and run all programs. Of course, there are infinitely many such programs, so this metaprogram will never generate them all in finite time. It is interesting to pause for a moment and consider what these programs can do and what the consequences will be. Such programs may be capable of text output. It follows that the metaprogram (assuming it runs for an infinitely long time) will create an infinite number of programs with text outputs. These programs can therefore create anything written—the word “Hello,” my phone number, the exact date of my death, this essay, a work by Shakespeare, Einstein’s equation $E = mc^2$, several valid digits of π, and even the code of this program itself.
Another possible output is visual. The program can thus generate vector or bitmap graphics. Consequently, these programs can create the Mona Lisa, a photo of the Milky Way, the Facebook logo, or a photograph of me writing this essay—a photo that no one has ever actually taken.
Audio output is, of course, also possible. The program can thus play the song “Lucy in the Sky with Diamonds” by The Beatles, J. S. Bach’s “Crab Canon,” a radio broadcast from December 29, 1989, and so on. Of course, we again have an infinite number of possibilities.

But the most interesting thing is that Python can also control the computer’s operating system. It can, for example, shut down the computer, delete certain files, and so on. Theoretically, it should therefore be capable of creating and spreading a computer virus worldwide, hacking the government, or manipulating elections. These are admittedly somewhat exaggerated examples, but they

are based on the assumption that the metaprogram will eventually create and run every possible program. Here, however, a problem arises. From the start, we have somehow intuitively assumed that the metaprogram will never stop. After all, that was a condition for the claim that it would truly create all possible programs. Since the Python language can control the operating system in this way, it can also create a program that shuts down or restarts the computer, deletes the original metaprogram file, or damages it in some way. It can also damage the entire operating system. If any of this happens, the metaprogram will stop. It follows, however, that this metaprogram will eventually stop at some finite time and that it therefore can never truly create all programs for the Python language. It reminds me of the “God paradox”: If God is omnipotent, can he create a stone that he himself cannot lift? If he can create such a stone but cannot lift it, he is not omnipotent. If he cannot create such a rock, he is also not omnipotent.
A logical step would be to create a rule in the program that would exclude any program capable of causing the metaprogram to halt. For example, this program would be able to shut down the computer:

```
import os
os.system (‘shutdown /s /t 1’)
```

The first line of the program specifies that commands from the os package will be used. Using this package—or module—the program can then execute commands that interact with the computer’s operating system. The second line of the program then shuts down the computer. So why not simply create a rule in the metaprogram that prevents the use of the **import os**

command? While our infinite list of all possible programs would then be incomplete, it would circumvent this pitfall. But that's not how it works. Even if we added this rule to the metaprogram, the metaprogram would eventually create its own copy that does not contain this rule—that is, it would create our original program without the new rule. Nothing would then prevent this incomplete copy from creating programs in which the `import os` command would be used. And it is precisely this command that would ultimately terminate our original metaprogram. Another option is not to run the individual programs at all, but only to save them; however, this would prevent our metaprogram from doing everything that is programmable in Python. I can't think of any way to work around this problem. Theoretically, it would be possible to use a "weaker" programming language that cannot shut down the computer or stop the metaprogram in any other way.

Here is the source code for this program:

```
import string
import os
from itertools import product

symbols = string.printable
index = 1
lenght = 1
program = ""
while True:
    # create variations with repetitions of
symbols used in python
```

```
    perm = product(symbols, repeat=lenght)
    for one_perm in perm:
        for x in one_perm:
            program += x

        # white a file.py
        f =
open("program_{}.py".format(index), "w")
        f.write(program)
        f.close()

        # execute file.py and decide if it
can run
        try:

exec(compile(open("program_{}.py".format(index),
"rb").read(), "program_{}.py".format(index),
'exec'), {}) # {} is for not using variables
declered in this .py file
        except Exception:
            print(program, "ERROR")
        else:
            f =
open("running_program_{}.py".format(index),
"w")
            f.write(program)
            f.close()
            print(program, "RUNNING")

        # delete file.py, reset everything
```

```
to default

os.remove("program_{}.py".format(index))
        program = ""
        index += 1
    lenght += 1
```

Recamán's Sequence in Turtle Graphics

March 2020

In this project, I visualized Recamán's sequence using turtle graphics.

What is Recamán's sequence?
Recamán's sequence is a sequence of non-negative integers. Its nth term, a(n), can be defined using the following rule:

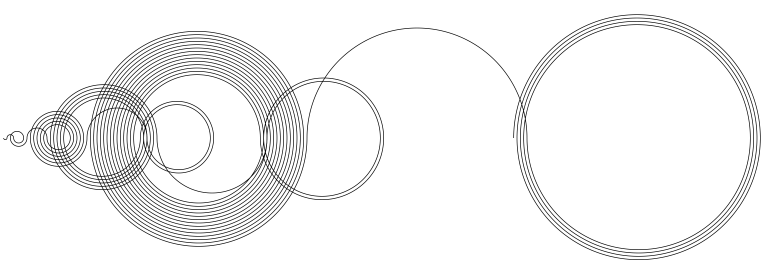
a(0) = 0; for n > 0, a(n) = a(n-1) – n if the result is a positive number and is not already an element of the sequence, otherwise a(n) = a(n-1) + n

The first terms of this sequence are therefore the numbers 0, 1, 3, 6, 2, 7, 13, 20, 12, 21, 11, 22, 10, 23, 9, 24, 8, 25, 43, 62, 42, 63, 41, 18… The Recamán sequence has the code A005132 in the OEIS (The On-Line Encyclopedia of Integer Sequences) database. Niel Solane proposed a conjecture—which remains unproven to this day—that this infinite sequence contains all non-negative integers.

What is turtle graphics?
Turtle graphics is **a form of** vector graphics drawn by a computer program. This program uses a virtual cursor and changes its position on a 2D plane according to predefined rules. The cursor leaves a trail behind it, allowing the program to draw. Such a program has simple rules, such as:

- move the cursor forward by x pixels,
- turn left/right by x°,
- turn left/right by x°,
- stop drawing the path,
- start drawing a trajectory
- …

The Recaman sequence is often visualized using arcs on the axis of non-negative integers, starting at the first number of the sequence, a(n). Then, an arc is drawn starting at this point and ending at the point corresponding to the next term in the sequence, that is, at the point a(n+1). Next, an arc is drawn starting at a(n+2) and ending at a(n+4). This process is repeated until the figure is large enough. An arc is drawn from the bottom if n is even and from the top if n is odd. In other words, an arc is drawn from the bottom every even step and from the top every odd step. This process is explained in more detail in this video.



I find the image above incredibly fascinating, so I decided to experiment further with this sequence. I therefore created a Python program that draws turtle graphics using the following rules:

1. **n = 0**
2. **turn left by a(n)°**

3. **move forward**
4. **n = n + 1**
5. **return to step 2**

As you can see below on the right, these simple rules have created an unexpectedly complex pattern that is essentially infinite, and what the interactive demo below displays is only a tiny fraction of it.

> Interactive or embedded content: recamanova-struktura.html

This structure fascinated me so much that I decided to let the program run for 3 days. After that time, the program had generated over 3,000,000 terms of the Recaman sequence, and the structure was so large that I decided to create a video about it (see below).

> Interactive or embedded content: bfn9x_3-C4M

A simple sample Python source code for this project is available below.

```
import turtle

t = turtle.Turtle()
ts = turtle.Screen()

while True:
```

```
  t.speed(0)
  t.up()
  t.left(270)
  t.setx(0)
  t.sety(0)
  t.down()
  recaman = [0]

  scale = 8 # set size
  n = 3500 # set how many iterations

  for i in range(1, n):
    if recaman[-1] - i > 0 and recaman[-1] -
i not in recaman:
      recaman.append(recaman[-1] - i)
      t.left(recaman[-1])
      t.forward(scale)

    else:
      recaman.append(recaman[-1] + i)
      t.left(recaman[-1])
      t.forward(scale)

  turtle.Screen().reset()

turtle.done()
```

Lychrel Fractal

December 2019

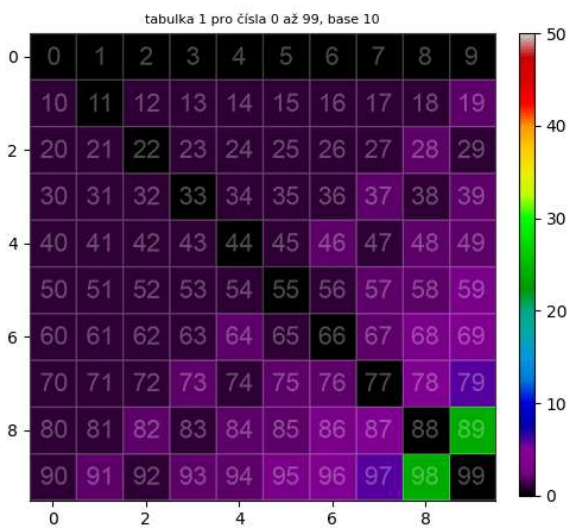
A palindromic number is a “symmetric” number whose value remains unchanged when its digits are written in reverse order. Examples include the numbers 2, 55, 121, 1991, and 12345678987654321.
If we take any natural number and add its mirror image (the same number written in reverse order) to it, and repeat this operation over and over, we will very often end up with a palindromic number after a finite number of repetitions. This is a very simple process:

1. Let **x** be any natural number and **y** be its mirror image
2. Perform the operation **x** + **y**
3. If the sum is not a palindrome, return to the second step

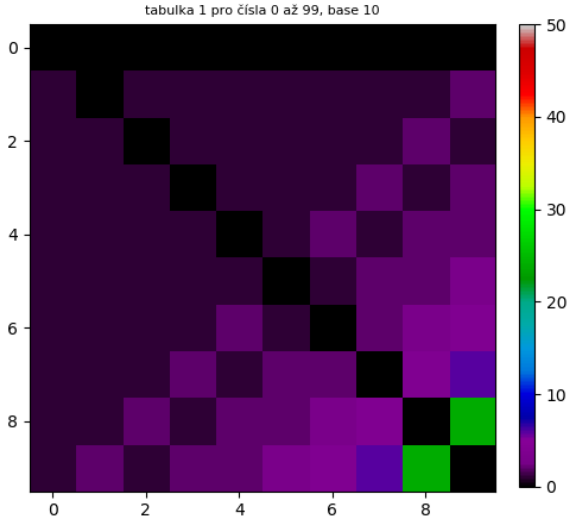
For example:
123 + 321 = 444
or
78 + 87 = 165, 165 + 561 = 726, 726 + 627 = 1353, 1353 + 3531 = 4884.

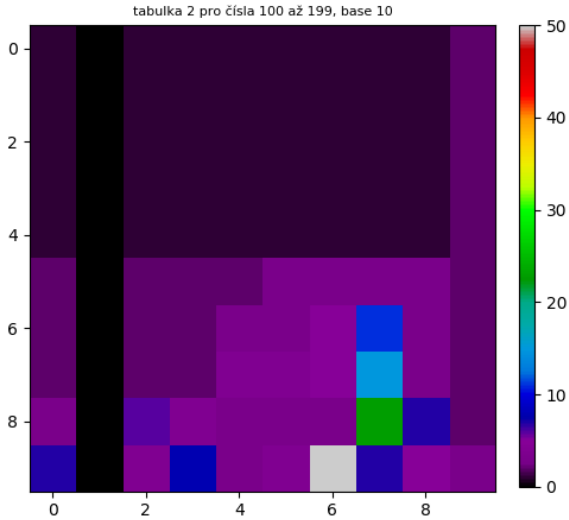
However, there are numbers for which it is unknown whether a palindromic number can be obtained after a finite number of iterations of the algorithm. We call such numbers candidates for Lychrel numbers. A Lychrel number is therefore a natural number that cannot form a palindromic number by repeatedly adding the original number to its mirror image. Some numbers form a

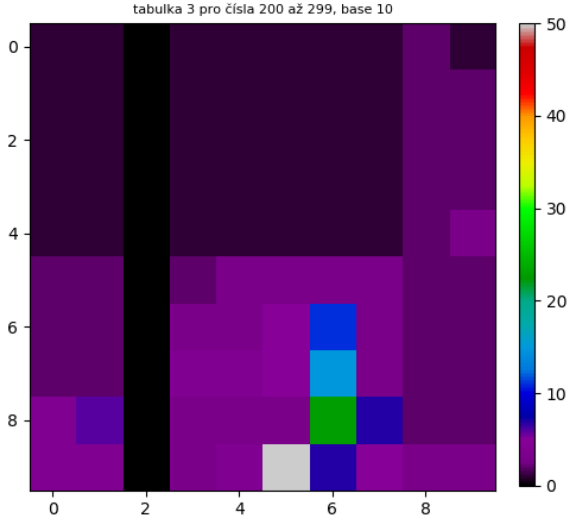
palindrome after a few repetitions (iterations) of this process; more precisely, 80% of natural numbers up to 10,000 form a palindrome after four or fewer steps, and 90% form a palindrome within seven steps. However, the number 89, for example, does not form a palindrome (8,813,200,023,188) until after 24 steps. The smallest candidate for a Lychrel number is therefore 196, followed by 295, 394, 493, 592, 689, 691, 790, 879… Different numbers thus require a different number of iterations to form a palindrome. To visualize the number of steps needed to form a palindrome from specific numbers, I created a square table and entered integers ranging from 0 to 99 into it. This table can be mathematically understood as a 10x10 matrix. Depending on how many steps were needed to create a palindrome from the number in a specific cell of the table, I colored the cell according to the assigned colors (see the spectrum to the right of the table), thus creating the resulting pattern.

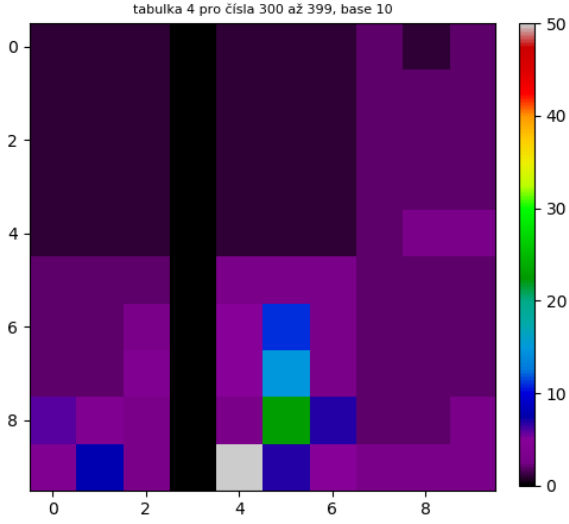


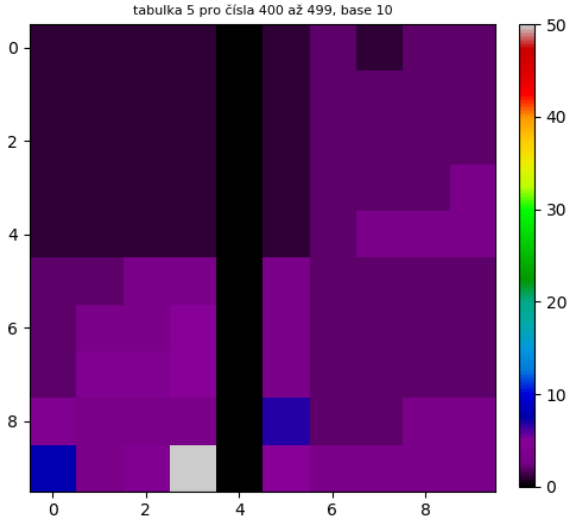
I decided to continue this process, so I created follow-up tables in the number ranges 100–199, 200–299, 300–399…



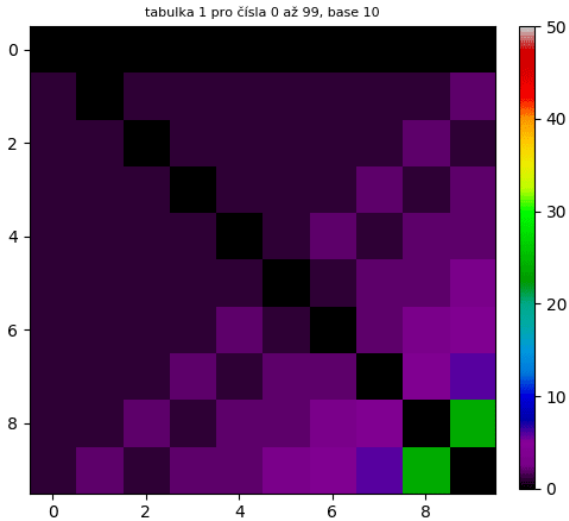



tabulka 3 pro čísla 200 až 299, base 10
0
2
4
6
8
0
2
4
6
8
50
40
30
20
10
0


tabulka 4 pro čísla 300 až 399, base 10
0
2
4
6
8
0
2
4
6
8
50
40
30
20
10
0

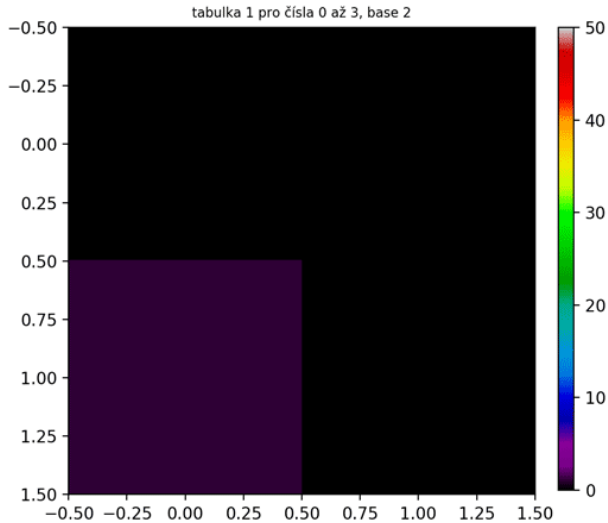


An infinite number of these tables can be generated. As a preview, I sorted the first 300 tables chronologically and turned them into an animated GIF. As you can see, the tables flow into one another much like a real animation.

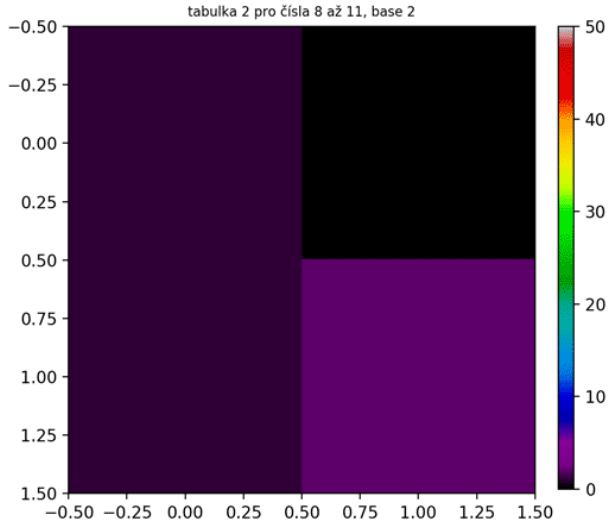


It is very important to note that no one has yet mathematically proven that candidates for Lychrel numbers are actually Lychrel numbers. In other words, no one knows whether, for example, the number 196 might eventually form a palindrome after many steps. In 2012, Jason Doucette, Wade VanLandingham, and Romain Dolbeau attempted to create a palindrome from this number. They tried over a trillion steps but did not find a palindrome. However, this is not proof that a palindrome cannot be created from this number. Perhaps it will emerge only after the one trillionth step. One thing is certain—if a palindrome cannot be formed from this number, this brute-force method will never answer this question. Since I wrote a program in Python to generate these patterns, for practical reasons I had to set up a sort of “brake” (set to 50 steps in my program) that limits the maximum number of steps. That is why the number 50 is the maximum value shown to the right of the tables. If such a limit did not exist, the program would get stuck in an endless loop of attempts to create a palindrome from numbers from which it is highly unlikely that a palindrome can even be formed. It’s important to realize that these palindromes are tied to our decimal system. For example, the number 255 is definitely not a palindrome in our decimal system, but in the hexadecimal system, we would write this number as FF—and that is a palindrome! These different number systems are also called “bases.” Thus, we can call the decimal system base 10, the hexadecimal system base 16, the binary system base 2, and so on. This raises the question: What would the tables look like in other bases? Since our original table for base 10 had dimensions of 10x10 cells, tables for higher bases (say, base N) will have dimensions of NxN cells. As can be seen in the animated GIF for

Table 1 below, the larger the base, the “sharper” the pattern becomes.



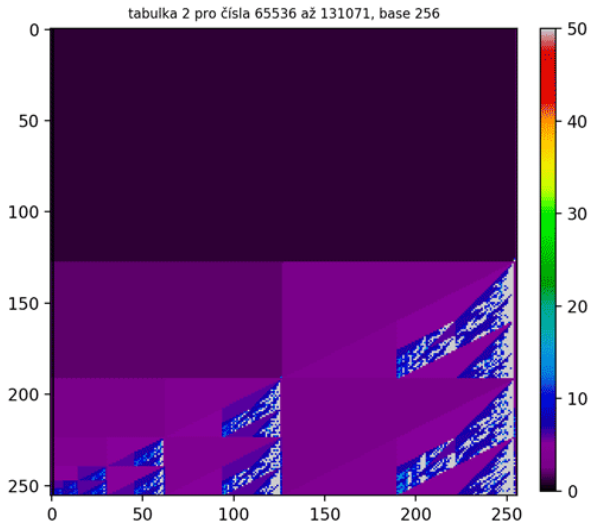
Only now has this structure revealed itself in all its glory, and as you can see, the structure of Table 1 is the same across all bases. But what about other tables? Is the structure of Table 2 also the same across all bases? As you can see in the GIF below, the answer is yes.

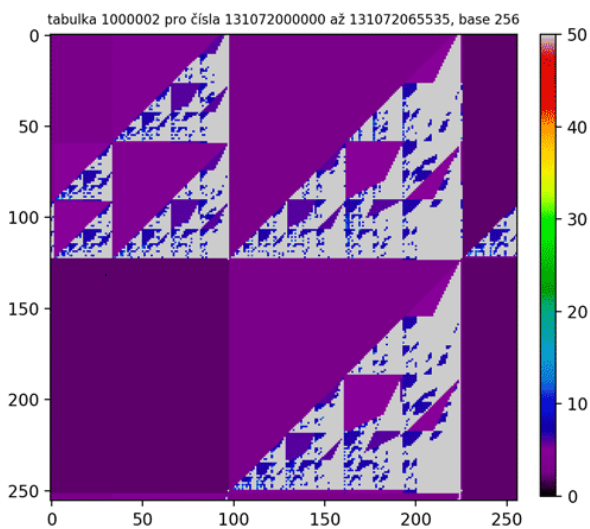


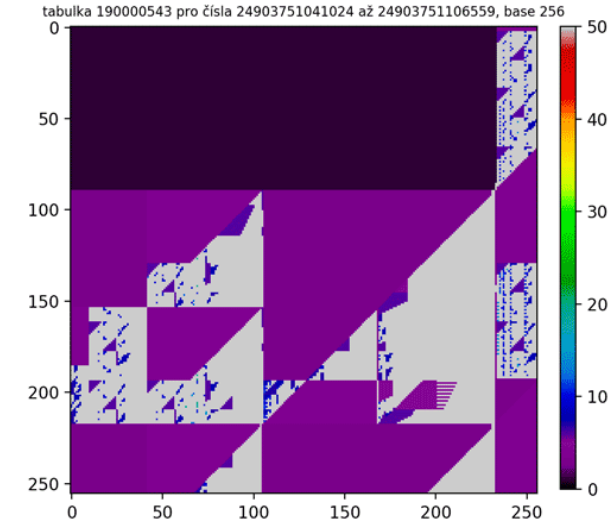
In Table 2, we can now see signs of recursion. We shouldn't be too surprised by this—after all, the pattern was created through a recursive process. One could say that we have just created a fractal, because Table 2 meets all the conditions for an object to be called a fractal:

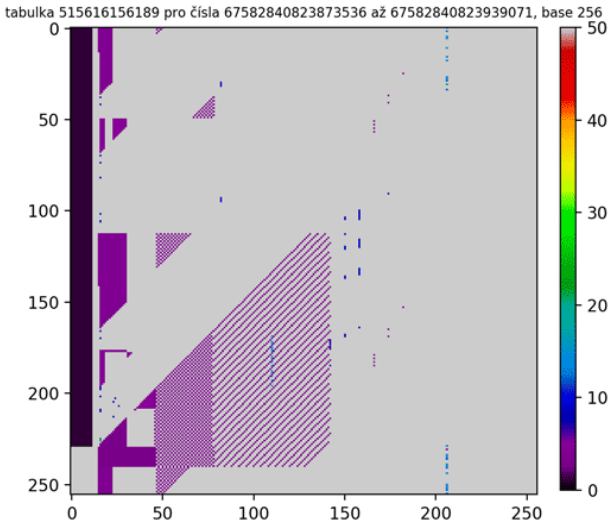
1. It is self-similar—this means that no matter what scale or resolution we observe the shape at, we always see a certain characteristic shape (motif) repeating itself;
2. At first glance, it usually has a very complex shape, but it is generated by repeatedly applying simple rules. In the first GIF, we've already seen the first 300 tables. But that only revealed the tip of the iceberg! So what does the millionth table look like at higher bases? Or the trillionth table? And what will it look like if I scroll through the tables chronologically and create an animation from them, as we did in the first GIF? Below are images of such "higher"

tables. As you can see, the higher the table's number, the more Lychrel numbers it contains (which is why the images are whiter).







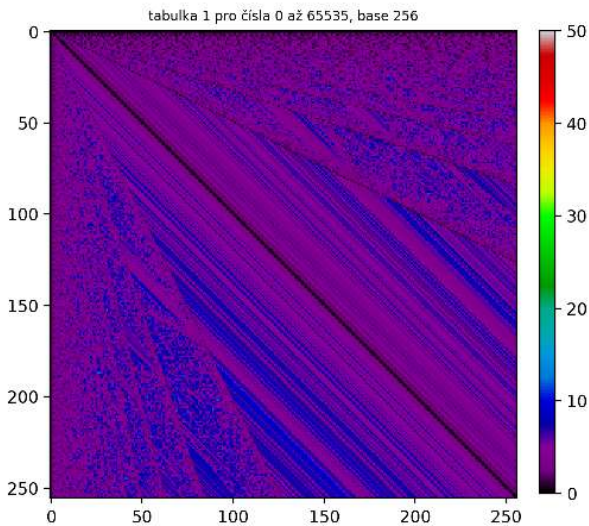


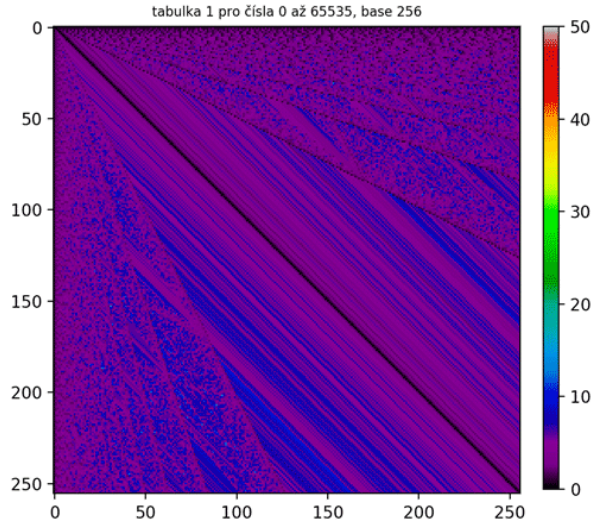
We've now uncovered this structure to such an extent that I'm not sure how to proceed further. However, I do see one more possibility for experimentation. At the beginning of this article, I listed the individual steps that serve as a guide for how to arrive

at (or fail to arrive at) a palindrome. Just for fun, I'll modify these steps to define a new process:

1. Let **x** be any natural number and **y** be its mirror image
2. Perform the operation (**x+y**) mod **x**
3. If the resulting number is not a palindrome, go back to the second step

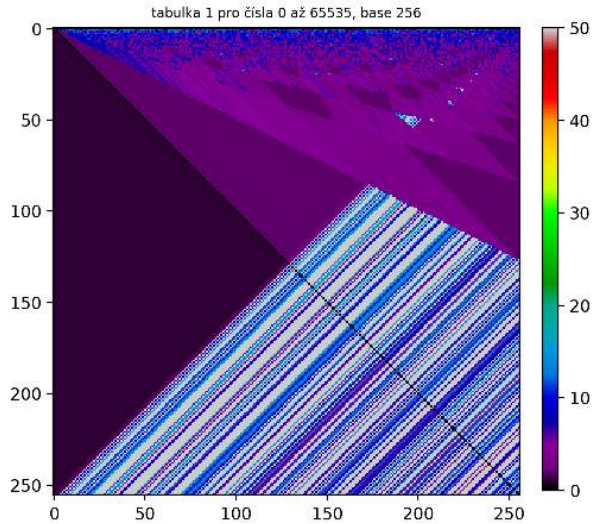
When we create tables using these new rules, as we did before, and scroll through them, the following animation is produced:

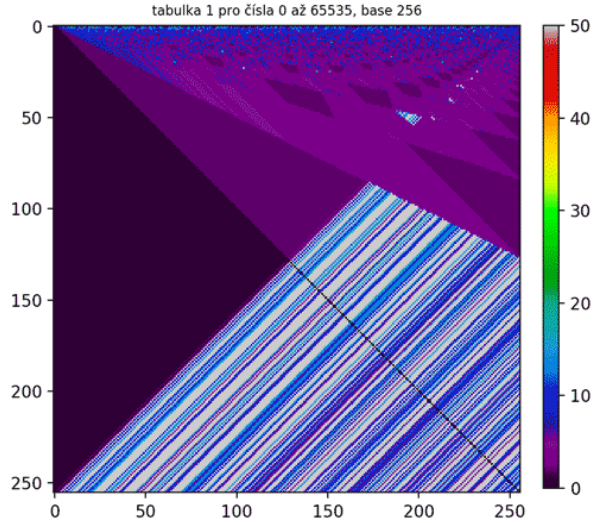




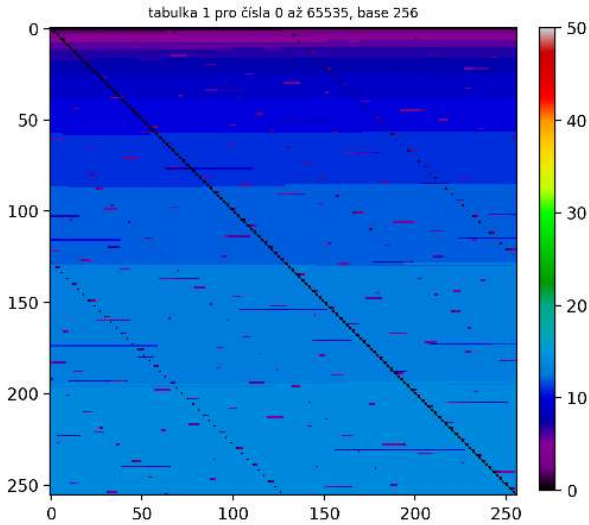
The result is truly remarkable. And as is evident, there are infinitely many variations of the rules. Here are a few more examples of such modified rules, each accompanied by the corresponding visualizations:

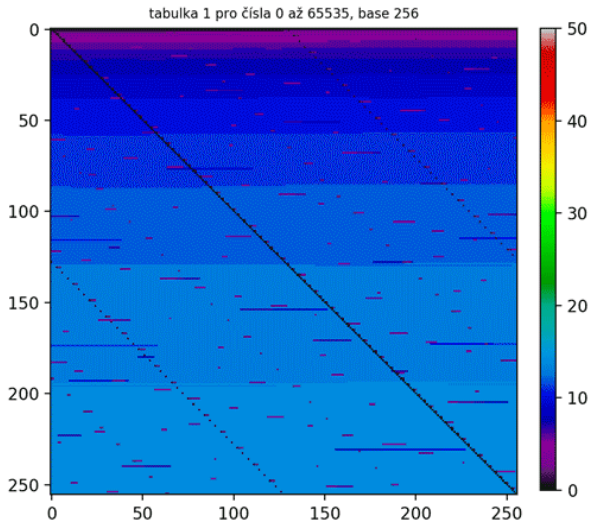
1. Let **x** be any natural number and **y** be its mirror image
2. Perform the operation (**x+y**) mod **x**+x
3. If the resulting number is not a palindrome, go back to the second step





1. Let **x** be any natural number
2. Perform the operation (2 * **x**) ÷ 3
3. Round the result of the second step up
4. If the resulting number is not a palindrome, go back to step





If anyone is interested in experimenting with a program to generate these patterns, here is the Python source code I

created:

```
import numpy as np
import matplotlib.pyplot as plt
import math

# convert positive whole number n in base10
to baseB
def base10_to_baseB(B, n):
    # create base symbols list
    abc = []
    result = []
    for symbol in range(B):
        abc.append([symbol])

    # convert number to baseB
    if n==0:
        result.append(abc[n])
    elif math.log(n, B) < 1:
        result.append(abc[n])
    elif math.log(n, B) >= 1:
        x = math.floor(n / B)
        result.append(abc[n % B])
        result.append(abc[x % B])
        if math.log(n, B) >= 2:
            for digits in range(2,
math.ceil(math.log(n, B)+0.00001)):
                x = math.floor(x / B)
                result.append(abc[x % B])
    result.reverse()
```

```
    return result

# convert positive whole number n in baseB
to base10
def baseB_to_base10(B, n):
    result2=0
    for digits in range(0,len(n)):
        result2+=n[digits][0]*B**(len(n)-
digits-1)
    return result2



#ENTER START AND LAST FRAME and BASE
start_frame=1
last_frame=1+100
B=256

start_frame-=1
last_frame-=1
for images_number in
range(start_frame,last_frame):

    #calculate first number of matrix (not
iterations of this number!)
    x = images_number
    x = (x) * (B ** 2)
    x_static=x

    #do all iterations to get whole matrix
```

```
    matOLD=np.array([])
    for l in range(1,(B*B)+1):
        #convert number from base10 to baseB
        x = base10_to_baseB(B, x)
        j = 0
        z = False
        while z == False:
            z = True

            # check if number is palindrome
            for k in range(len(x)-1):
                if x[k] != x[(len(x) - 1) -
k]:
                    z = False
            if z == True:
                break

            # add number and it's reverse
version
            y=x
            x=baseB_to_base10(B,x)
            y.reverse()
            y=baseB_to_base10(B, y)
            x=x+y  #change this to generate
different images
            x=base10_to_baseB(B,x)
            j+=1

            #max iterations limit
            if j>50:
```

```
                j=50
                break

        #create matrices
        matNEW=np.array([j])
        matOLD=np.concatenate((matOLD,
matNEW))

        #add 1 to iterate next number
        x=x_static
        x+=1
        print("{}/{}".format(x-x_static, (B
** 2))) #report about process

    #reshape matrices to base x base
    matOLD=matOLD.reshape(B,B)
    print(matOLD)

    #plot on image
    plt.subplot(211)
    plt.imshow(matOLD,
cmap=plt.cm.nipy_spectral)
    plt.title("tabulka {} pro čísla {} až
{}, base {}".format(images_number
+1,x_static,x_static+(B**2)-1,B),fontsize=8)
    plt.subplots_adjust(bottom=-0.9,
right=0.8, top=0.9)
    cax = plt.axes([0.8, 0.09, 0.02, 0.81])
    plt.clim(0, 50)  # set limit to colorbar
maximal value
```

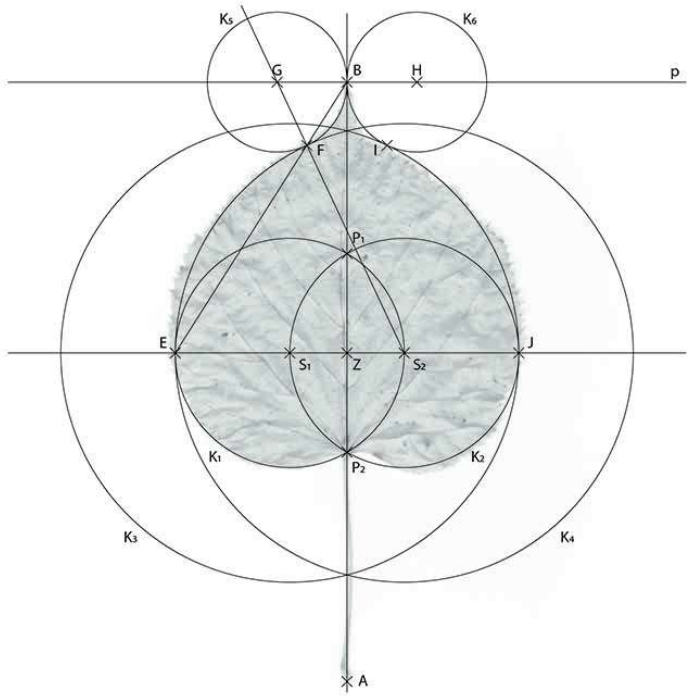
```
    cb = plt.colorbar(cax=cax)
    plt.savefig('{}_lychrel {} - {}, base
{}.png'.format(images_number
+1,x_static,x_static+(B**2)-1,B),dpi=200)
    cb.remove() #remove colorbar to prevent
"border summing"
    plt.draw() #refresh figure
plt.show()
```

And here you can play around with an interactive demo:

> Interactive or embedded content: lychreluv-fraktal.html

Linden Leaf

October 2019


K5
K6
G
B
H
p
F
I
P1
E
J
S1
Z
S2
K1
K2
P2
K3
K4
A

1. $K_1(S_1;r);r>0$
2. $K_2(S_2;r);S_2 \in K_1$
3. $\leftrightarrow S_1S_2$
4. $K_3(S_1;2*r)$
5. $K_4(S_2;2*r)$
6. $P_1, P_2; P_1 \in K_1 \cap K_2, P_2 \in K_1 \cap K_2, P_2 \notin P_1$
7. $\leftrightarrow P_1P_2$
8. $P_2A; P_2A \in \leftrightarrow P_1P_2, |P_2A|=2*r, P_1 \notin P_2A$
9. $Z; Z \in \leftrightarrow S_1S_2 \cap \leftrightarrow P_1P_2$
10. $P_1B; P_1B \in \leftrightarrow P_1P_2, |P_1B|=r+(r/2), Z \notin P_1B$
11. $p; p \perp \leftrightarrow P_1P_2, B \in p$
12. $E; E \in K_1 \cap K_4$
13. BE
14. $F; F \in K_4 \cap BE, F \notin E$
15. $\rightarrow S_2F$
16. $G; G \in \rightarrow S_2F \cap p$
17. $K_5(G;|BG|)$
18. $BH; |BH|=|BG|, BH \in p, G \notin BH$
19. $K_6(H;|BG|)$
20. $I; I \in K_3 \cap K_6$
21. $J; J \in K_2 \cap K_3$
22. Lipový list={P_2A, $\overset{\frown}{P_2E}$, $\overset{\frown}{EF}$, $\overset{\frown}{FB}$, $\overset{\frown}{BI}$, $\overset{\frown}{IJ}$, $\overset{\frown}{JP_2}$}

The first image is a simple photograph of a linden leaf. The second shows a geometric construction of the leaf's shape. The shape is constructed using only six circles and a few other auxiliary geometric figures. It is remarkable that this leaf can be drawn very easily using only a pencil, a set square, and a compass. The size ratios of the geometric shapes needed for the construction are, in fact, very simple. For example, circles K3 and K4 have twice the radius of circles K1 and K2. The "stem" of the leaf (technically known as the petiole) also has a length equal to the radius of circles K3 and K4. The ratio of the petiole's length (line segment P2A) to the leaf blade's length (line segment P2B) is certainly worth mentioning. This ratio is 1:1.6143, which is an approximation of the golden ratio accurate to two decimal places

($\varphi \approx 1.6180\ldots$). The third figure is isomorphic to the second figure (it preserves all the information from the second figure and is therefore simply a different representation of the same thing). It uses symbols to show how to draw this leaf. The linden leaf is then defined as the set consisting of a single line segment (the petiole) and several arcs (the leaf blade).

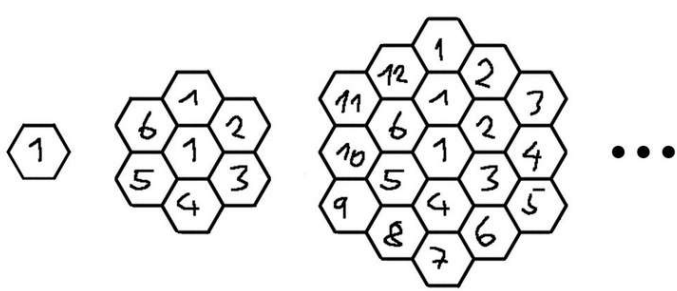
Prime Number Spirals

October 2019

In this project, I attempted to find patterns for arithmetic sequences with a high frequency of prime numbers. I found these patterns by creating numerical spirals similar to the Ulam spiral, formed from three basic geometric shapes—hexagons, squares, and triangles. I chose these shapes because a regular tessellation of a surface can be achieved using only these three shapes. In other words: only these shapes can be arranged side by side without leaving any gaps.

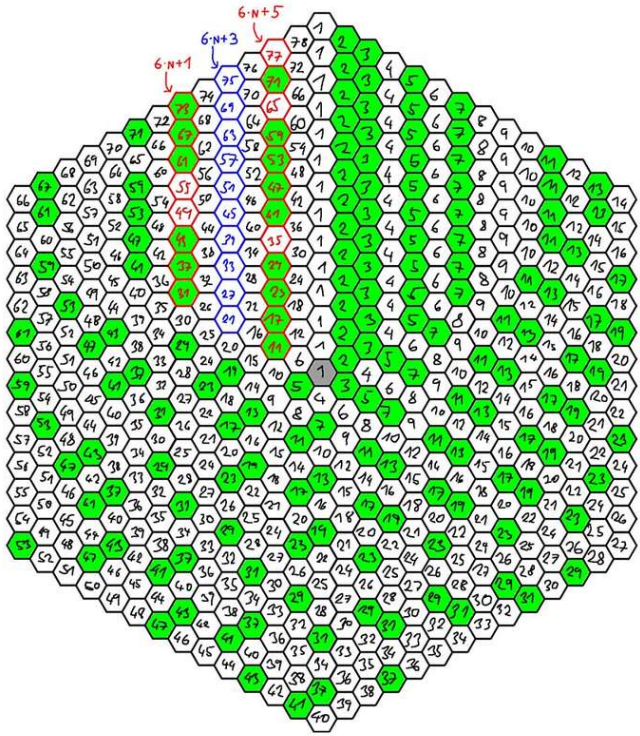
HEXAGON SPIRAL

First, I drew a single hexagon and wrote the number 1 inside it. Along the entire outer perimeter of this hexagon, I drew additional hexagons and wrote positive natural numbers inside them in a clockwise direction so that the number 1 was always aligned vertically in a single column. I repeated this process until the figure was large enough.



Then I highlighted in green all the hexagons that contained a

prime number.

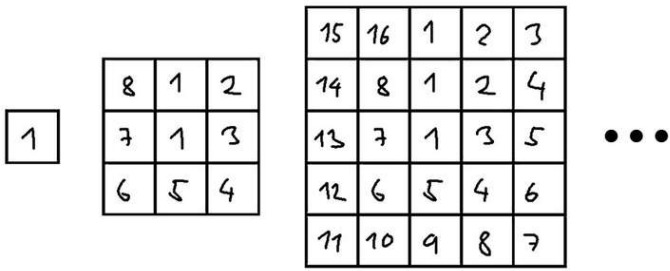


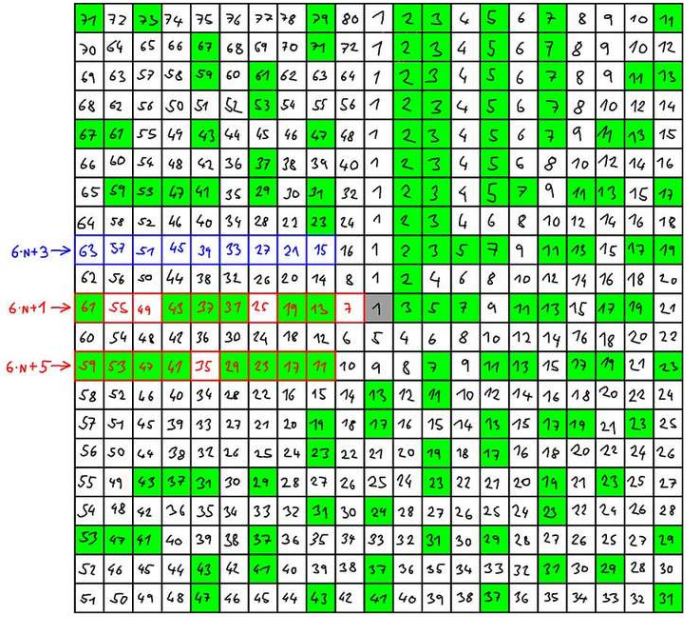
A remarkable pattern suddenly emerged in this figure. I noticed that in the two columns at the top left, there are numerical sequences with an arithmetic progression whose common difference is 6 (highlighted in red), which contain a high frequency of prime numbers. The formula for calculating the nth term in the left column is **a(n) = 6*n + 1,** and in the right column**, a(n) = 6*n + 5**. I searched for these two sequences on the OEIS (Online Encyclopedia of Integer Sequences) and found that both are already in the database under codes A016921 and A016969. I also found an interesting claim online: the set of the sequences a(n) = 6*n + 1 and a(n) = 6*n + 5 together contains all prime

numbers greater than 3. In addition to these two interesting columns containing many prime numbers, I also discovered a sequence of odd numbers that contains no prime numbers (highlighted in blue). The formula for calculating the nth term in the blue column is **a(n) = 6n + 3**. I later found this sequence in the OEIS database under code A016945.

SQUARE SPIRAL

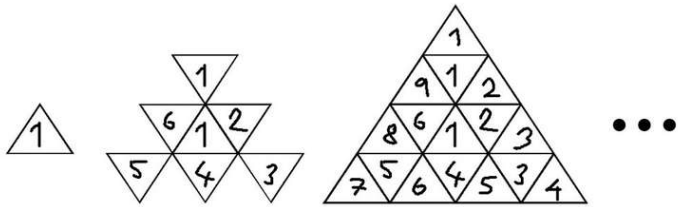
In the same way, I constructed a square spiral in which these three sequences also appeared.

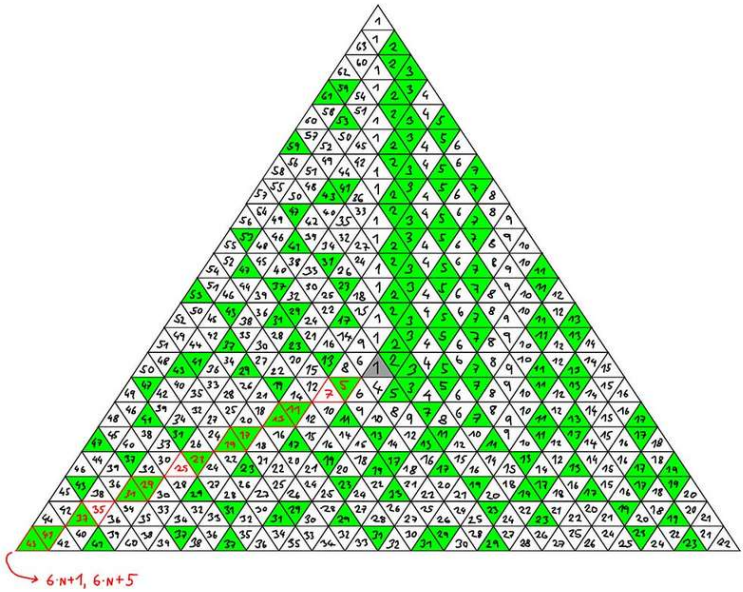




TRIANGULAR SPIRAL

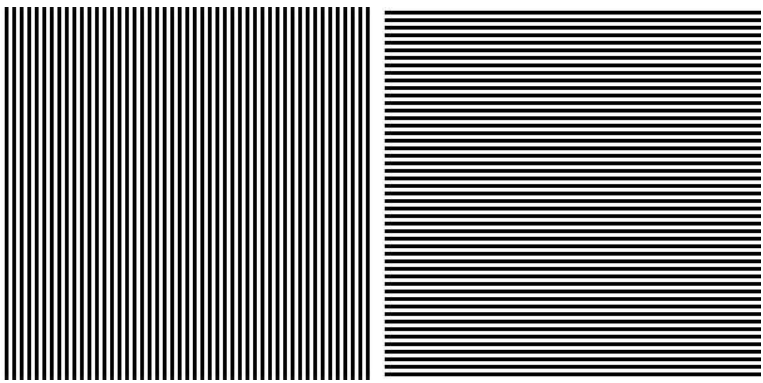
In this spiral, the sequences **a(n) = 6*n + 1** and **a(n) = 6*n + 5** appeared again, but combined into one. This combination occurred because, at every even step in the construction of the spiral, the triangle is rotated by 180° (some triangles point upward, while others point downward).




6·N+1, 6·N+5

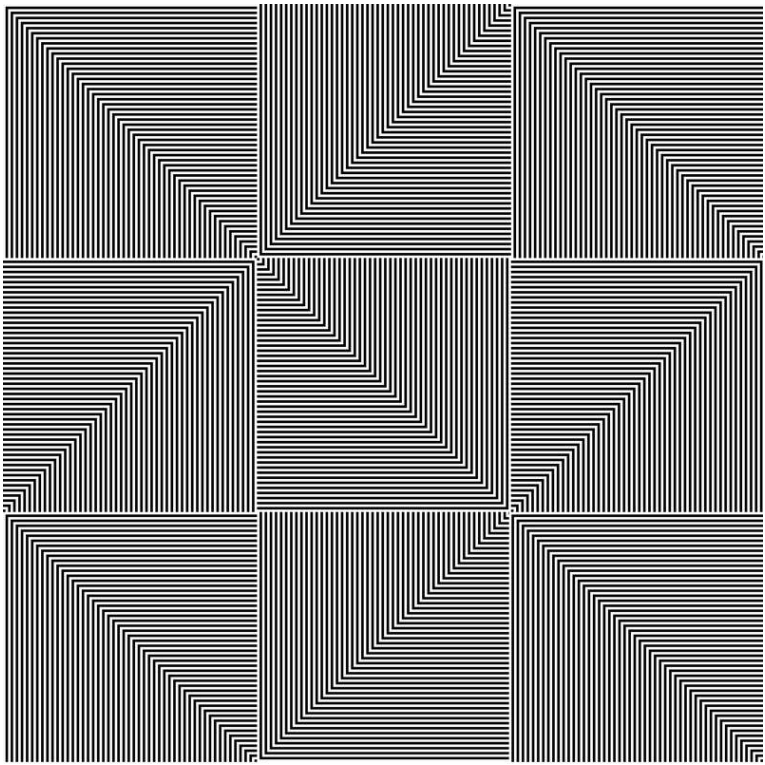
The Illusion of Contrast Between Vertical and Horizontal Stripes

August 2019



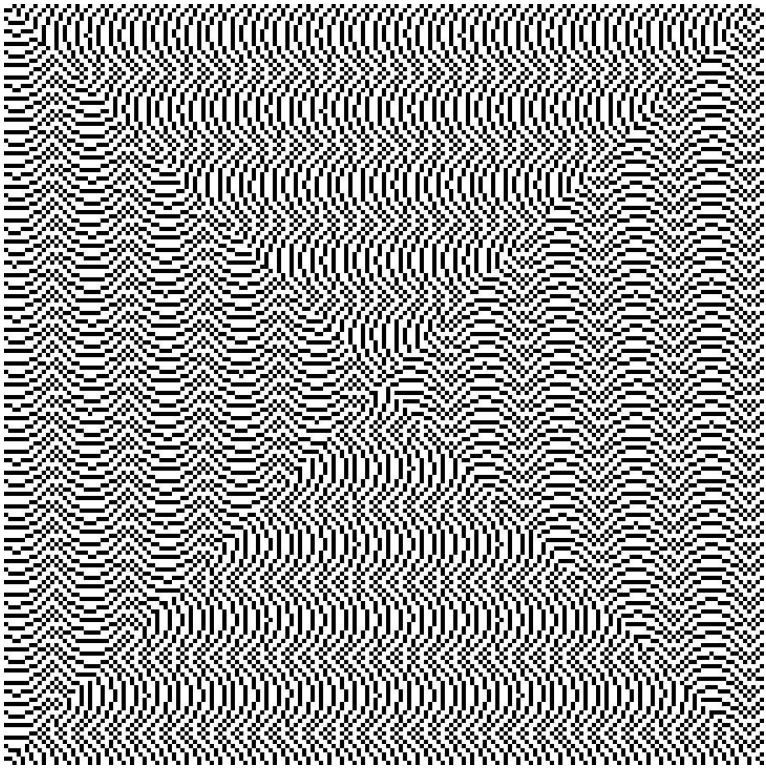
The horizontal stripes in the image above appear less contrasting than the vertical stripes when viewed from a distance. In reality, however, they are identical, as can be seen when viewed up close. If you turn your head 45° to the left or right, this illusion disappears. If you turn your head 90° to the left or right, the horizontal stripes become vertical, and therefore appear more contrasting. I noticed this illusion in an image of the Fibonacci spiral. This square image looks as if it were made up of four triangles—two filled with horizontal stripes and two filled with vertical stripes. I believe this illusion works on a similar principle as the vertical-horizontal illusion. I also believe it is related to the response of certain groups of neurons to different stimuli. Neurons react differently to various stimuli, such as vertical

stripes, diagonal stripes, horizontal stripes, etc. (see the book *Gödel, Escher, Bach*, Chapter 11). It is remarkable that this illusion affects everyone with varying intensity—some people see it very clearly, while for others it does not work at all. This illusion is even more evident in the image below.

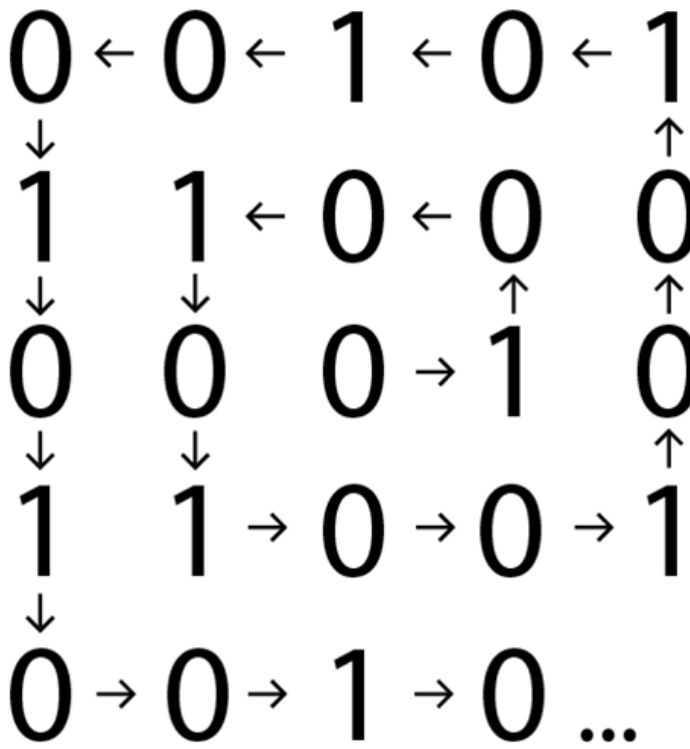


The Fibonacci Word Spiral

August 2019



To draw this figure, I placed the Fibonacci sequence into the spiral in the same way that natural numbers are placed into the Ulam spiral. I labeled the individual numbers in this spiral according to the following rule: 0 = black square, 1 = white square (this process is illustrated in the animation below). To streamline this process, I used the JavaScript scripting language.



What is a Fibonacci word?

A Fibonacci word is a specific sequence of binary digits (or, more generally, any two symbols). We obtain it in a similar way to the Fibonacci sequence, except that instead of addition, we use word concatenation. The first two terms are defined: S0 = 0, S1 = 01. The next term, formed by concatenation (i.e., adding the penultimate term to the last term), will be S2 = 010. The sequence of the first few digits of the Fibonacci words would therefore look like this: 0100101001001010010100100101001001…

What is the Ulam spiral?

The Ulam spiral , also known as the prime number spiral, is a

diagram created by arranging natural numbers in a spiral and highlighting the prime numbers. It was discovered by mathematician Stanisław Ulam in 1963. Ulam wrote the natural numbers into a rectangular grid, placing the number 1 in the center and the other numbers spiraling outward.

Project source code

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="UTF-8">
  <title>Spirála Fibonacciho slova</title>

  <meta name="viewport"
content="width=device-width, initial-
scale=1">

  <style>
    #container {
      text-align: center;
      position: absolute;
      left: 50%;
      top: 50%;
      padding: 20px;
      transform: translate(-50%, -50%);
      width: 600px;
      height: 600px;
      background-color: white;
    }
```

```
    #point {
      color: black;
      background-color: white;
      border:none;
      position: absolute;
      font-size:11px;
      text-align:center;
      margin: 0;
      padding: 10px;
      width:20px;
      height:20px;
    }

    #point2 {
      color: white;
      background-color: black;
      position: absolute;
      font-size:11px;
      text-align:center;
      border:none;
      margin: 0;
      padding: 10px;
      width:20px;
      height:20px;
    }
  </style>
</head>
<body>
  <main id='container'>
```

```
  </main>

  <script>
    /* FUNKCE SPIRALY */
    function spiral(n) {
      if (n === 0) return [0, 0, r];
      --n;

      var r = Math.floor((Math.sqrt(n + 1) -
1) / 2) + 1;
      var p = (8 * r * (r - 1)) / 2;
      var en = r * 2;
      var a = (1 + n - p) % (r * 8);
      var pos = [0, 0, r];

      switch (Math.floor(a / (r * 2))) {
        case 0:
          {
            pos[0] = a - r;
            pos[1] = -r;
          }
          break;
        case 1:
          {
            pos[0] = r;
            pos[1] = (a % en) - r;
          }
          break;
        case 2:
          {
```

```
            pos[0] = r - (a % en);
            pos[1] = r;
          }
          break;
        case 3:
          {
            pos[0] = -r;
            pos[1] = r - (a % en);
          }
          break;
      }

      return pos;
    }

    /* FIBONACCIHO SLOVA */
    container =
document.getElementById("container");
    var var0 = "<div id='point'></div>";
    var var1 = "<div id='point2'></div>";
    var var3;
    var text = "";
    var i;

    /* ITERACE NEFUNGUJE PO JEDNOM CTVERECKU
ALE PO KAZDEM SOUCTU JEDNICEK A NUL */
    for (var i = 0; i < 22; i++) {
      var3 = var0 + var1;
      var1 = var0;
      var0 = var3;
```

```
      text += var3;
      container.innerHTML = text;
    }

    /* VOLANI FUNKCE SPIRALY */
    var cislo =
document.getElementById('container').getElementsByTag

    for(var i=0; i<cislo.length; i++) {
      cislo[i].setAttribute("class",
"jedno");

      var pos = spiral(i);

      cislo[i].style.right = 300 + 40 *
pos[0] + "px";
      cislo[i].style.top = 300 + 40 * pos[1]
+ "px";
    }
  </script>
</body>
</html>
```

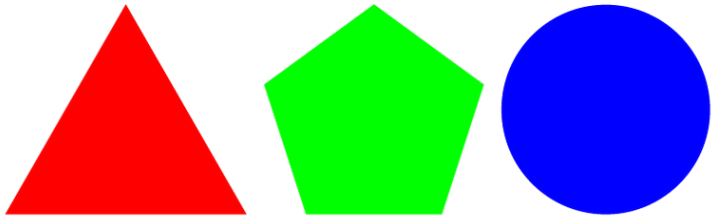
Concept by: Vojta Maur
Code by: Pavel Burda

Color, Shape, and Tone

June 2019

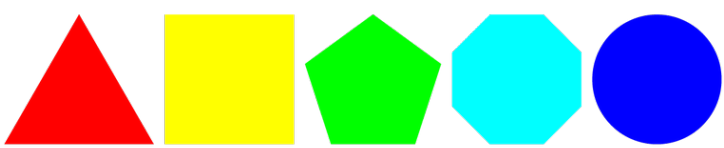
barevná teorie - Vasilij Kandinskij

According to artist Vasily Kandinsky and his color theory, there is a connection between color and shape. He assigned three 2D geometric shapes to the RYB (red, yellow, blue) color model used at the time: triangle = yellow, square = red, circle = blue. I was inspired by his work and created a modern version of this color theory. Instead of the RYB color model, which may now be outdated, I used the physically more accurate and currently more widely used RGB (red, green, blue) color model. I replaced the square that Kandinsky used with a pentagon, because a square is more similar to a triangle than to a circle, while a pentagon seems to me a more suitable transition between a triangle and a circle.



barevná teorie - Vojta Maur

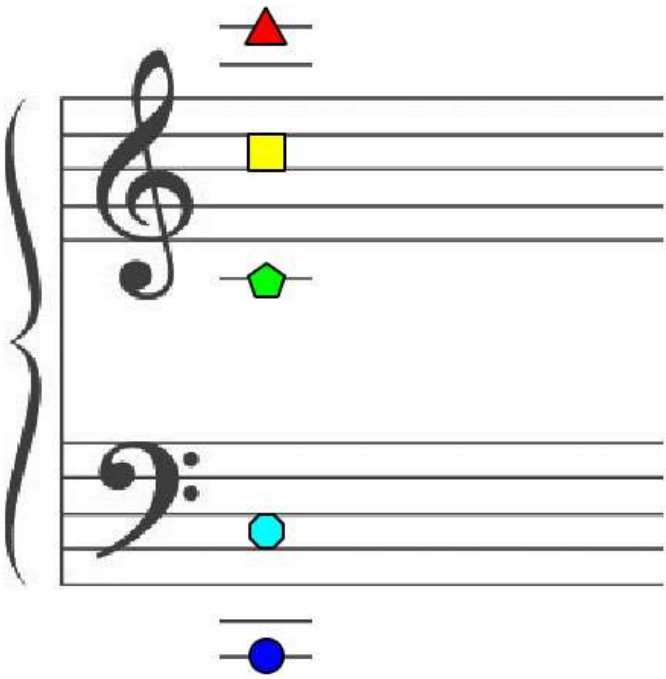
To find a suitable shape (pentagon) between a triangle and a circle, I used the interior angles of the shapes. The interior angle of an equilateral triangle is 60° (or 60^1). The interior angle of a circle should be 180° (or 60^1.268324336648371). Yes, a circle has no sides and therefore cannot have interior angles, but for example, the interior angle of a thousand-sided polygon is 179.64°, and this shape visually resembles a circle very closely. If I take the average of these two exponents, 60^[(1+1.268324336648371):2], I get a result of 103.923°. This interior angle is most similar to that of a pentagon, whose interior angle is 108°. To expand this color theory, I used the same procedure to add transitions between the basic color shapes with the following relationships: square = yellow, octagon = cyan. I attempted to supplement this theory by assigning color shapes to pitch according to the relationship: acute angle + warm color = high pitch, obtuse angle + cool color = low pitch. I recorded this concept in a musical staff.



rozšířená barevná teorie - Vojta Maur

I attempted to expand this theory by assigning colored shapes to

pitch according to the relationship: acute angle + warm color = high pitch, obtuse angle + cool color = low pitch. I recorded this concept on a musical staff.



The only color I couldn't assign to any shape or pitch is purple. It should be similar to green (it is also something between blue and red and is both cool and warm at the same time). Should it look like a semicircle? Or like a rounded triangle? Or should it be identical to green—that is, also a pentagon? So far, I have not found an answer to this question.

Human Vision

June 2019

Human vision is actually different from what most people assume. The raw data generated by our eyes is very different from how our brain subsequently interprets it—and thus from how we think we see. The image below visualizes the “raw data” stripped of the “post-processing” performed by our brain.

Several notable imperfections can be seen in the image:

1. The image is flipped horizontally and vertically. Every baby sees this way at birth, but over time, the brain learns to flip the image. This effect can also very rarely occur after ingesting dissociative hallucinogens.
2. The image is rendered separately for each eye—only the brain combines them into a single image.
3. The image is sharp only in a small central area and becomes blurry toward the edges.
4. The image is most colorful in a small central area and loses

saturation toward the edges. This is caused by the high number of cones in the center of the eye, which decreases rapidly away from the center. Each eye has a single black dot—the so-called blind spot (technically known as a scotoma). There are no cones or rods in this part of the eye because the optic nerve is located there. The brain typically fills in these blind spots with information from the other eye.

5. Straight lines are slightly distorted into arcs, as if through a fisheye lens or a wide-angle camera lens. The brain tries to straighten these lines, but this is merely an illusion.
6. The nose is also visible in the field of view, which the brain normally filters out.
7. The image is not perfectly clear but contains faint visual noise. This noise arises from a combination of physical light noise, the inherent noise of the photoreceptors, and other neural activity in the visual system. Under normal conditions, the brain usually suppresses it, but it can be noticeable especially in the dark, with eyes closed, or on uniform surfaces.

For my second-year final project in the multimedia production program, specifically in the animation course at the Vocational School of Commerce, Applied Arts, and Design, I created a video simulating various interesting visual impairments:

> Interactive or embedded content: sTMWRaVGFIE

Personality Profile

December 2018

This project was created as a school assignment for the Photography course at the Secondary Vocational School of Commerce, Applied Arts, and Design in Pilsen (Nerudova 33).

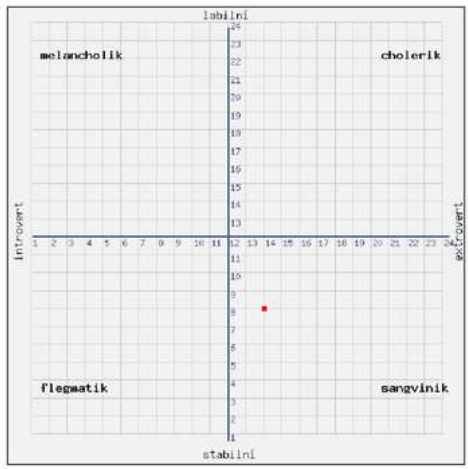
The goal was to experimentally combine portrait photography, psychological personality types, visual projection, animation, and sound. The final form of the photographs and videos was based on Eysenck’s personality test and the classification of temperaments according to Galen’s four temperaments.

Úvod, Eysenckův test

Když fotograf pořídí fotku člověka, zachytí tak záznam jeho fyzické podoby, možná momentální výraz, ale ne jeho osobnost. Dobrý fotograf může vyjádřit charakter člověka kompozicí, barevností či nasvícením, ale ne vždy je to úplně patrné.
A proto jsem se rozhodl promítat projektorem na lidské tváře i jejich osobnost. Fotografovaným osobám jsem nejdřív nechal vyplnit Eysenckův psychologický test. Tento test určil, zda je osoba labilní nebo stabilní a introvert nebo extrovert. Podle toho lze člověka zařadit do čtyř skupin: melancholik, cholerik, flegmatik a sangvinik. Toto zařazení se jmenuje Galénova čtveřice.

1.	Toužíte často po vzrušu kolem sebe?	● Ano	○ Ne
2.	Potřebujete často povzbuzení od přátel, kteří vám rozumí?	○ Ano	● Ne
3.	Jste ukvapující bez uvažování?	● Ano	○ Ne
4.	Dělá vám značné těžkosti říct někomu „ne"?	● Ano	○ Ne
5.	Než se do něčeho pustíte, promyslíte si to napřed?	● Ano	○ Ne
6.	Když řeknete, že něco uděláte, dodržíte vždy svůj slib, i kdyby to bylo spojeno s nesnázemi?	○ Ano	○ Ne
7.	Máte často střídavě dobrou a špatnou náladu?	○ Ano	● Ne

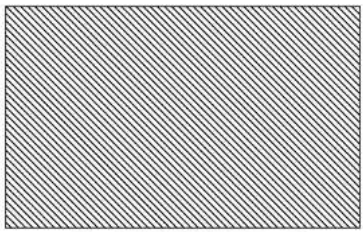
Eysenckův test - ukázka



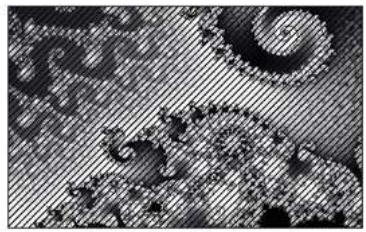
Eysenckův test - výsledek

Přiřazení obrazce k typům osobnosti

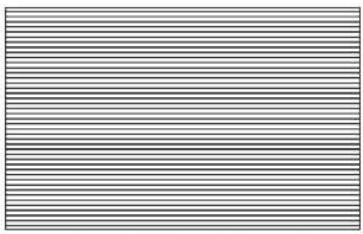
Z následujících výsledků tohoto testu jsem poté vybral jeden ze čtyř obrazců, který vystihuje daný typ osoby nejlépe. Podle rozřazení: melancholik, cholerik, flegmatik a sangvinik.



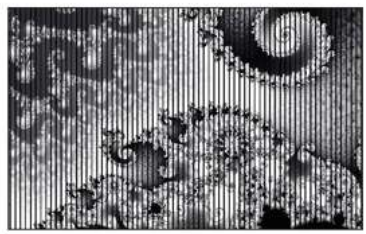
melancholik (labilní, introvert)
- diagonální pruhy z levého horního rohu do pravého dolního rohu



cholerik (labilní, extrovert)
- diagonální pruhy z pravého horního rohu do levého dolního rohu, fraktály (Mandelbrotova množina)



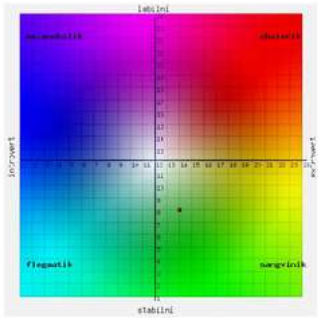
flegmatik (stabilní, introvert)
- horizontální pruhy



sangvinik (stabilní, extrovert)
- vertikální pruhy, fraktály (Mandelbrotova množina)

Barevnost projekce

Barevnost projekce je nastavena monochromaticky podle barevného kruhu umístěného v množině osobnostního testu. Čím více je osobnost neutrální (blíž ke středu), tím je barva světlejší.



barevný kruh v množině typů osobností

výsledná barva
a její hexadecimální hodnota

výsledná podoba obrazce připraveného k projekci

Fotografie

Výsledná foto-realizace: aplikování barevného obrazce na portrétní fotografii.
Pro lepsí výsledek je vhodné použít bílé jednoduché oblečení bez potisku a černé pozadí.
Fotografovaná osoba tak lépe vynikne.

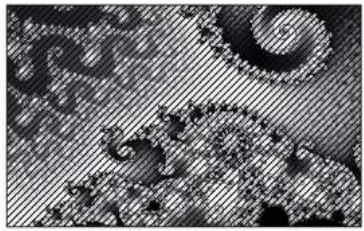
ukázková foto-realizace

ukázkové foto-realizace

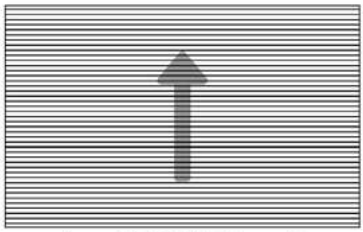
Animace obrazců

Na základě předchozích experimentů a realizací ve fotografii se snažím tento projekt rozšířit i o animaci jednotlivých obrazců, které charakterizují osobnosti.

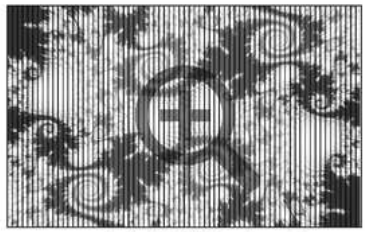
melancholik (labilní, introvert)
- diagonální pruhy z levého horního rohu do pravého dolního rohu,
rotace obrazce



cholerik (labilní, extrovert)
- diagonální pruhy z pravého horního rohu do levého dolního rohu,
fraktály (Mandelbrotova množina),
blikání obrazu v náhodných intervalech
(např. černá, obrazec, černá,
černá, obrazec, obrazec, černá...)



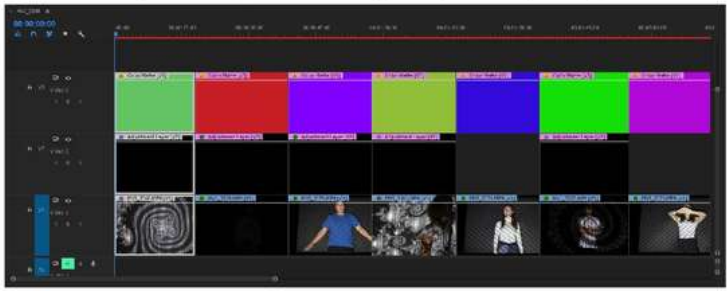
flegmatik (stabilní, introvert)
- horizontální pruhy,
pohyb obrazce zdola nahoru



sangvinik (stabilní, extrovert)
- vertikální pruhy, zoom do fraktálů
(Mandelbrotova množina)

Video

Pro lepší zachycení osobnosti jsem využil animované obrazce. Natočené scény jsem sestříhal do jednoho videa, ve kterém má každý prostor pro určitou specifickou pózu.

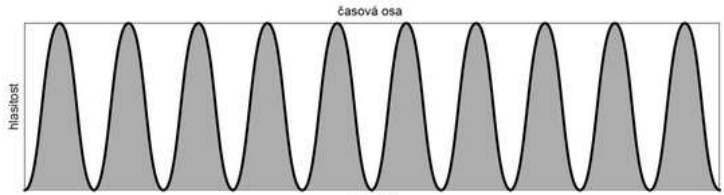


screenshot obrazovky z prostředí střihacího programu

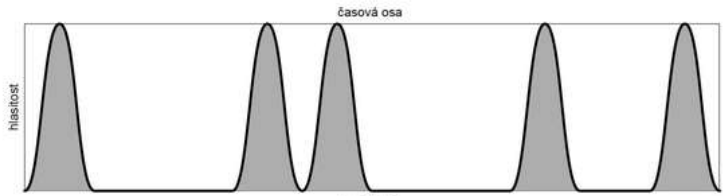
několik ukázkových snímků z videa

Zvuk

Pro lepší shodu zvuku s typem osobnosti jsem použil pravidelný a náhodný akustický rytmus. Osobám, které jsou vyhodnoceny jako stabilní jsem přiřadil pravidelný opakující se rytmus a osobám labilním jsem přiřadil náhodný rytmus.



stabilní
- pravidelný akustický rytmus



labilní
- náhodný akustický rytmus

Checkerboard Grid

December 2018

> Interactive or embedded content: ID_PCIbCvlk

I applied a checkerboard grid to the sample photo, where each checkerboard square corresponds to one pixel of the photo. After applying this grid, the white areas of the checkerboard squares are the original photo pixels, and the black areas are inverted in both color and brightness. The full-size photo thus appears as a gray monochrome area, but the original photo is displayed only after digital zooming. For correct display on a Full HD monitor, the photo must be approximately 2000 px in height. Incorrect display may occur when opening the photo in a browser that bicubically resamples the pixel grid. A verified browser is, for example, Windows Photo Viewer.

> Interactive or embedded content: wehAxodpQGg

As another example of this principle in action, I created a photograph that features both color and semantic contrast.

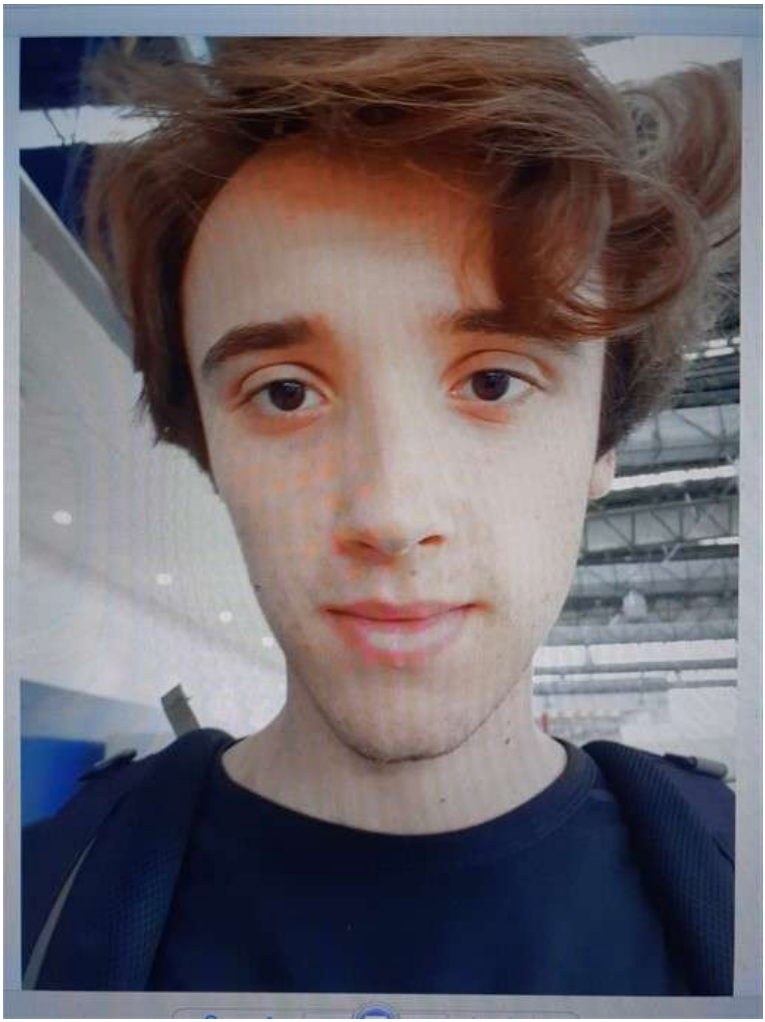
Distortion of Information

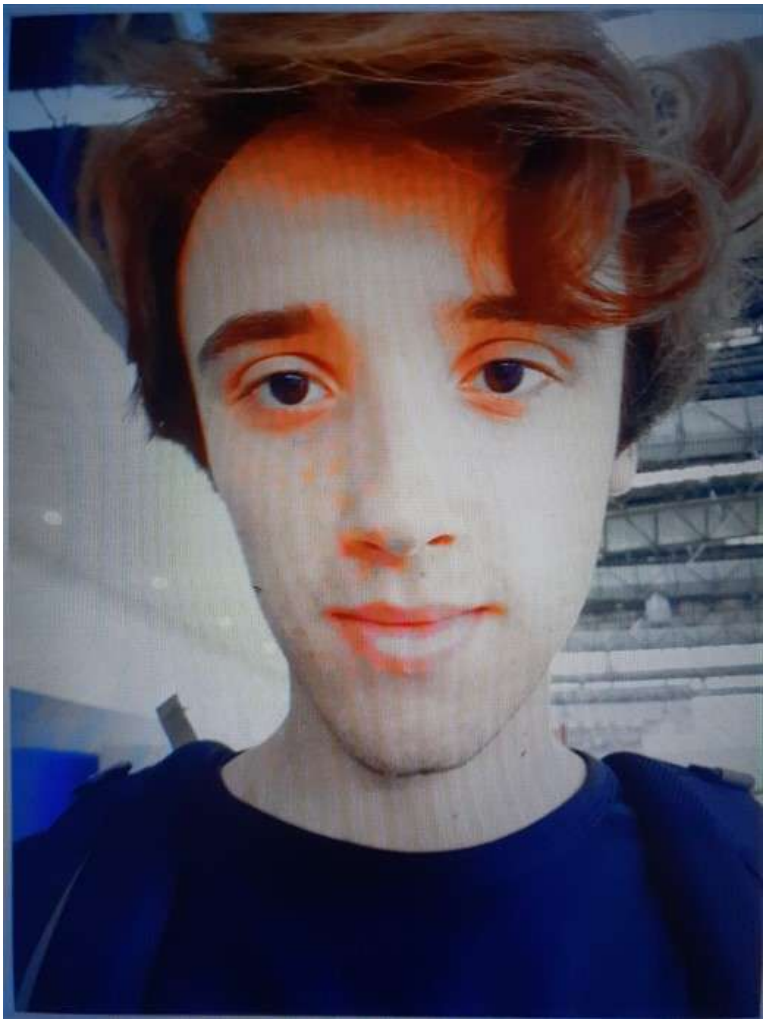
August 2018

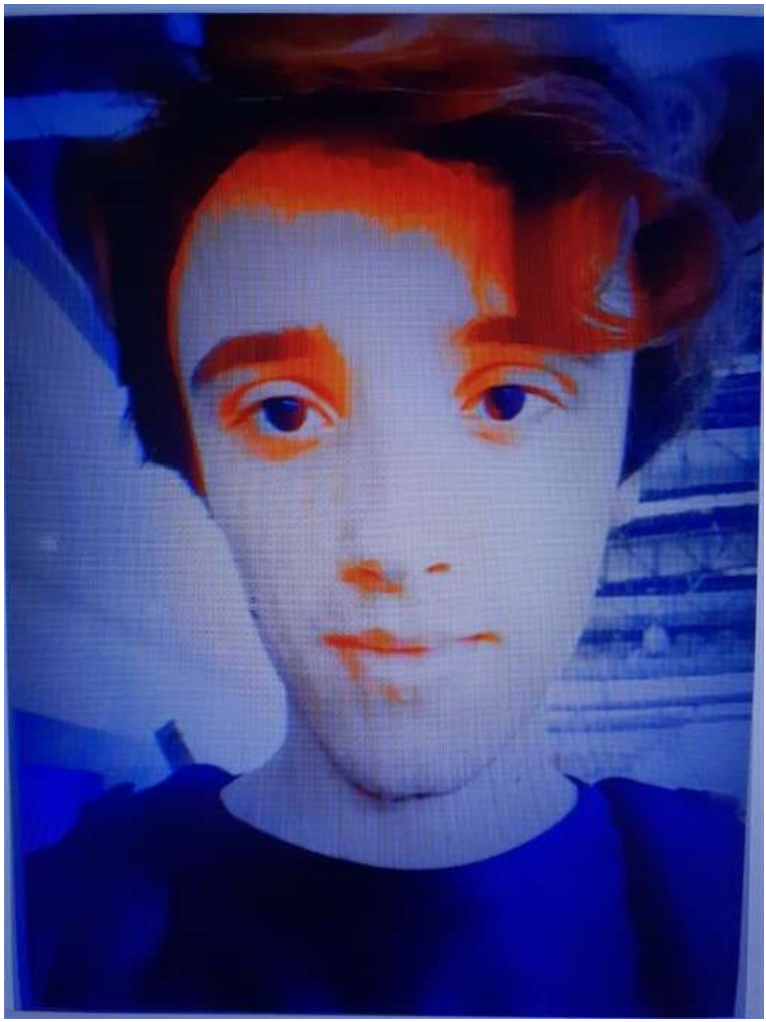
How many intermediaries does an article we see on the internet pass through before it reaches us? Can we trust its accuracy? How different is the world we see through our cell phone, computer, and TV screens?

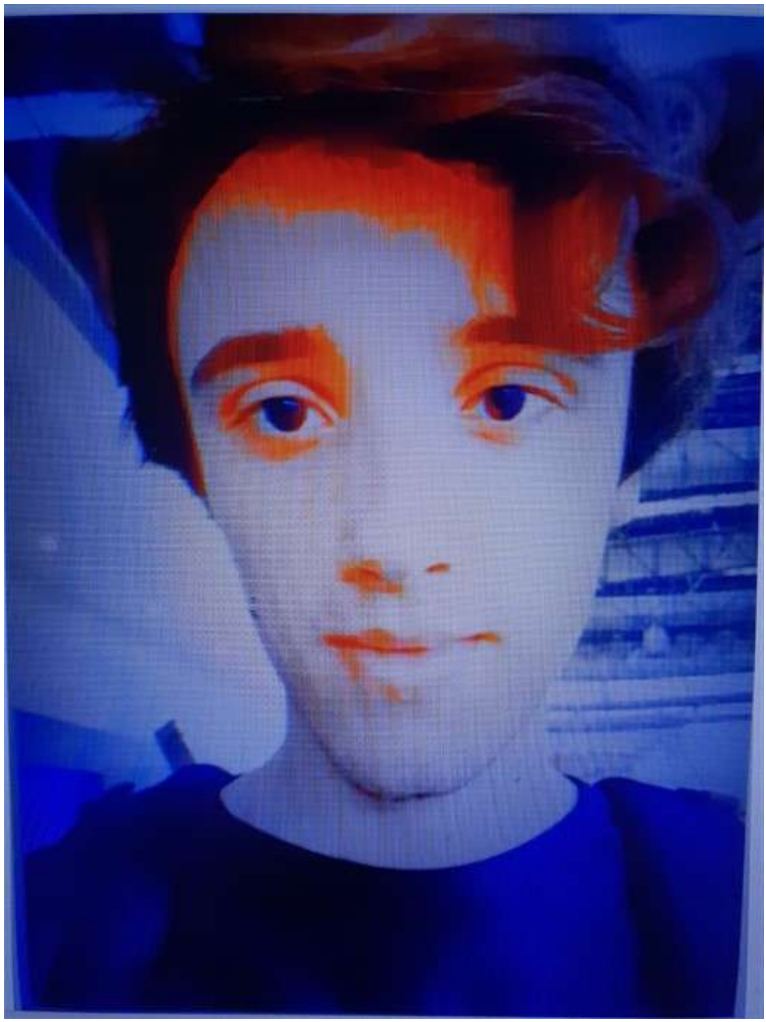
It’s important to verify every piece of information we see from multiple sources and not take its accuracy for granted.

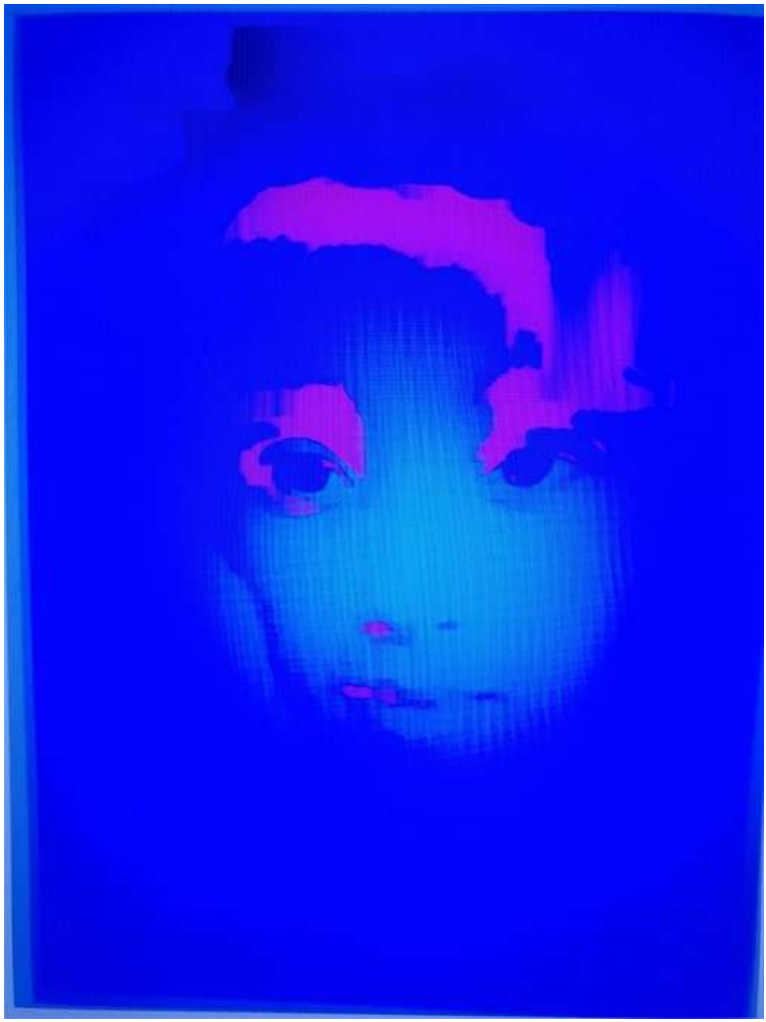
This work was created by taking a single photograph and then repeatedly photographing that same image from a computer monitor.

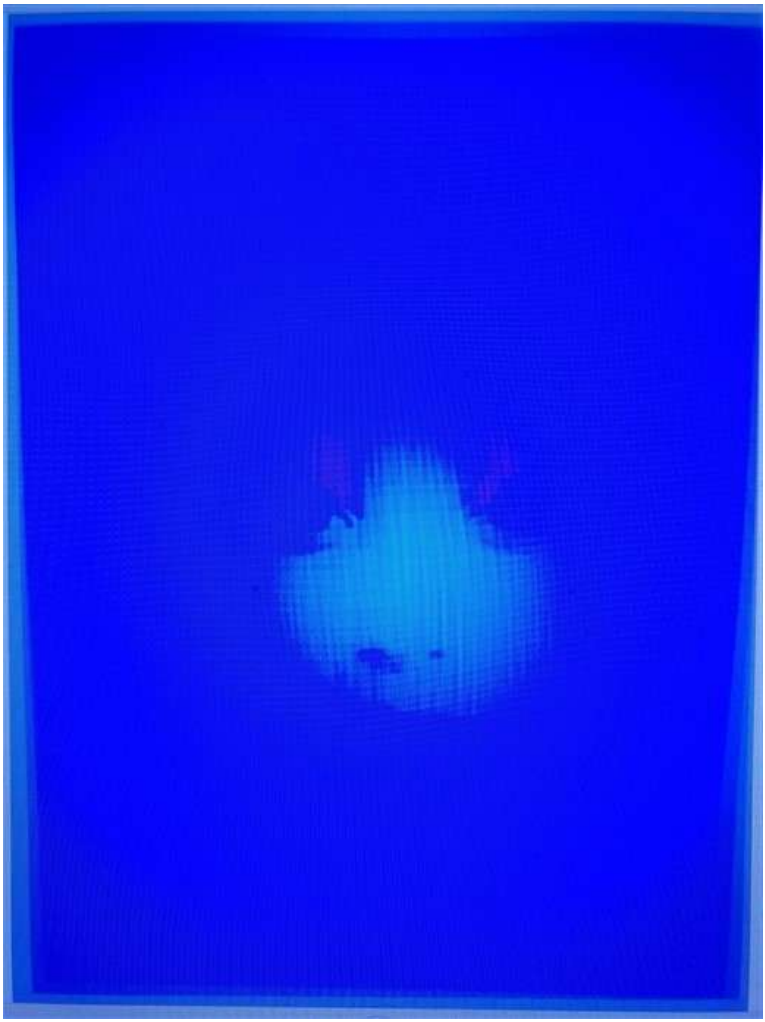












Two Rhythms

April 2018

The first video consists of two rhythms: visual flickering and acoustic clicking. These two rhythms have slightly different durations. Through this slight deviation, the video achieves a strong sense of unease in certain sections. In the second video, I added visual material focused on anti-war themes to this basic concept.

> Interactive or embedded content: X9ms8pp89Pg

Two Rhythms 1 - Black x White, Basic Concept

> Interactive or embedded content: MQIDzwTYjoA

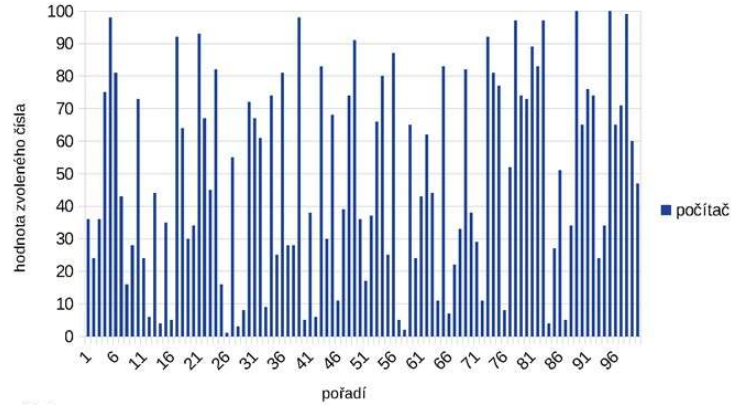
Two Rhythms 2 – Application of the Basic Concept to Visual Material

Human-Selected Random Numbers

April 2018

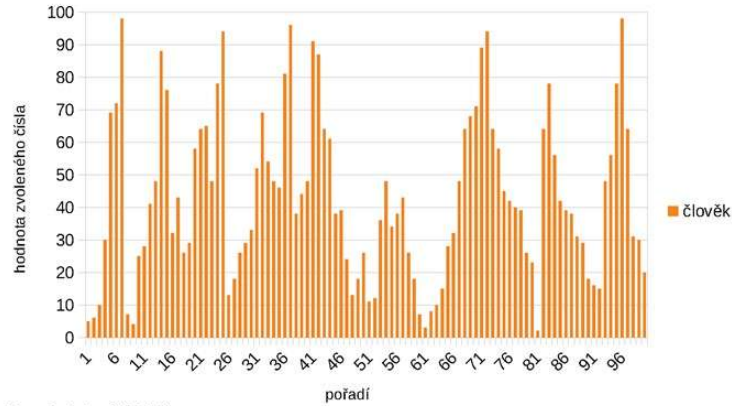
In this project, a questionnaire was distributed to several people. The participants wrote down 100 random numbers between 1 and 100 that came to mind. I then entered this data into a computer and created one graph for each questionnaire. The horizontal x-axis represents the order of the individual numbers, and the vertical y-axis represents the values of the selected numbers. The blue graph was generated by a computer, specifically a random number generator. When comparing all the graphs as a whole, it is evident that each test subject has a unique graph with their own pattern of number selection. It can also be observed that certain nearly identical cycles recur in many graphs (mostly in the form of a gradual increase and decrease in numbers).

NUMBERS SELECTED BY THE RANDOM NUMBER GENERATOR

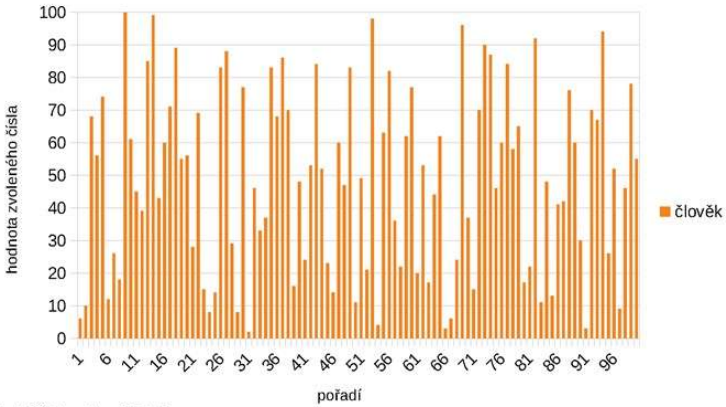


počítač

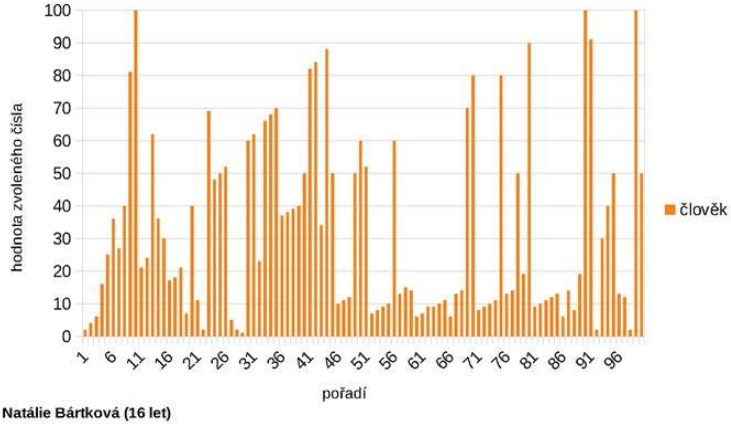
NUMBERS CHOSEN BY PEOPLE



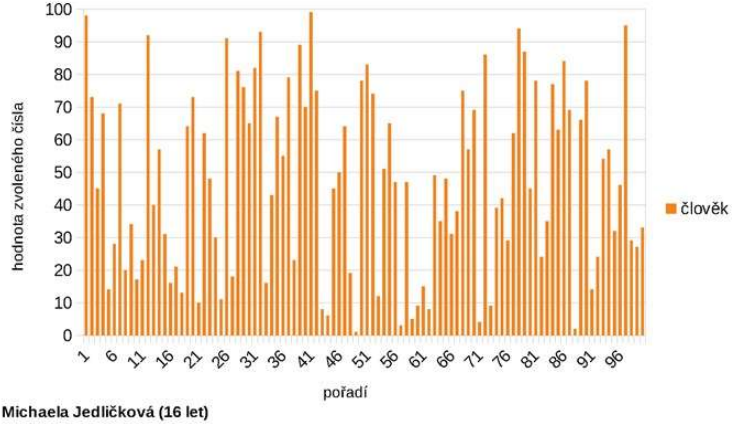
Hana Antolová (71 let)



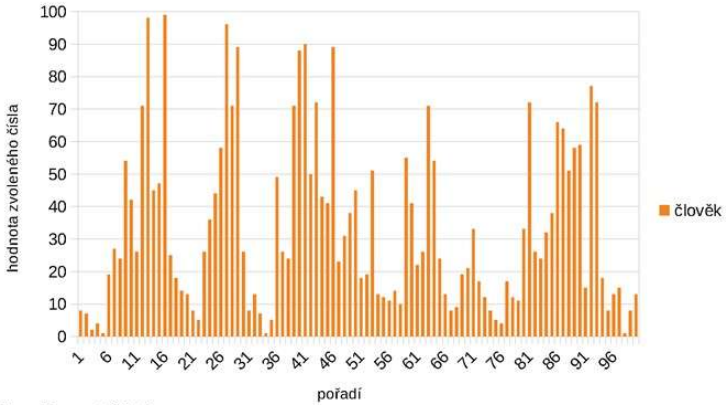
Lukáš Plescher (18 let)



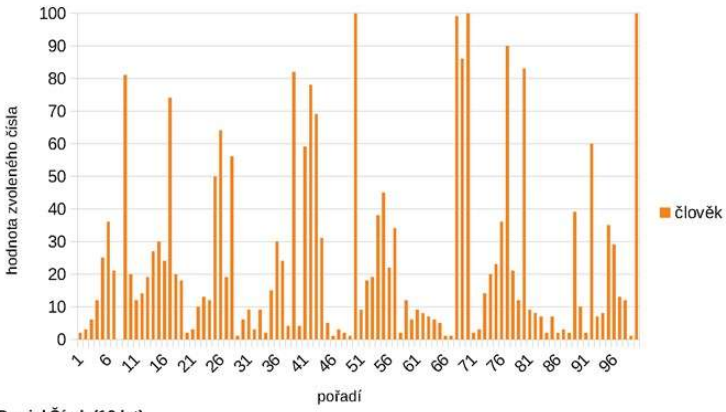
Natálie Bártková (16 let)



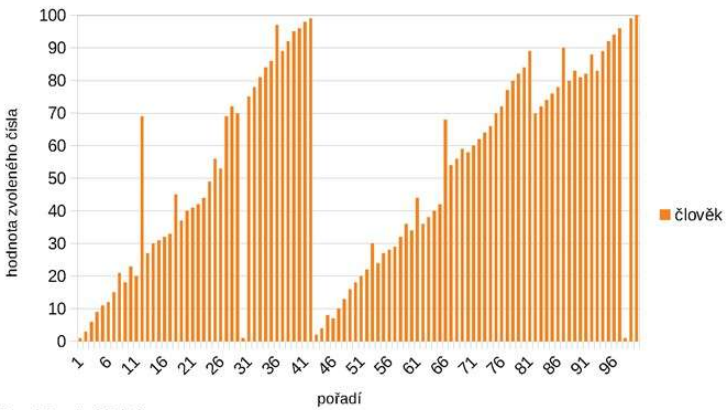
Michaela Jedličková (16 let)



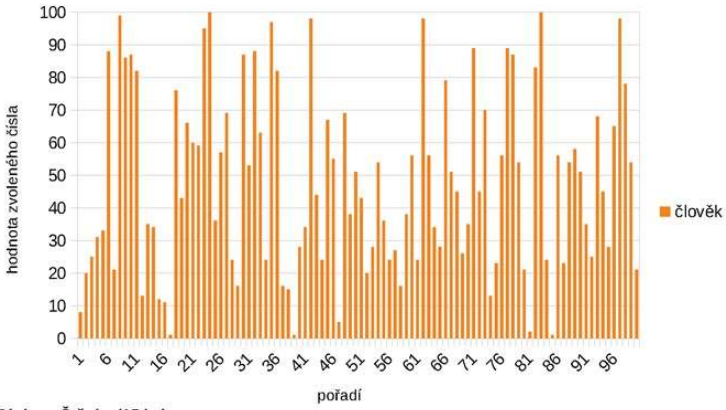
Alena Maurová (53 let)



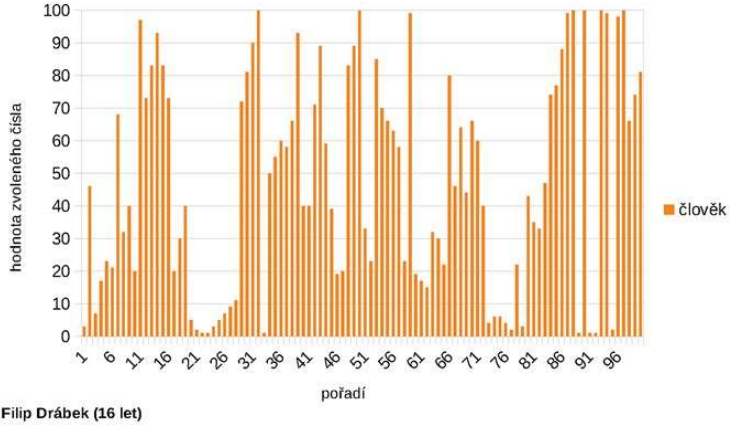
Daniel Šírek (16 let)



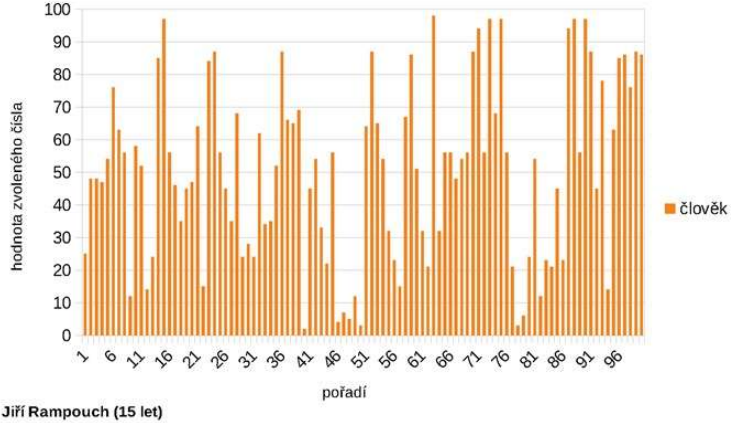
Pavel Burda (16 let)



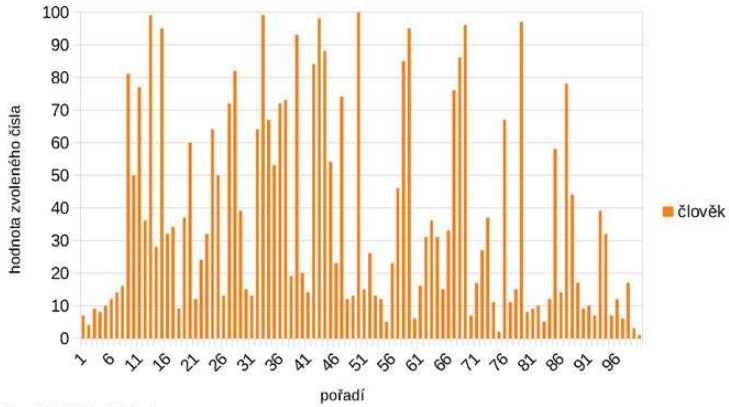
Jáchym Štěpka (15 let)



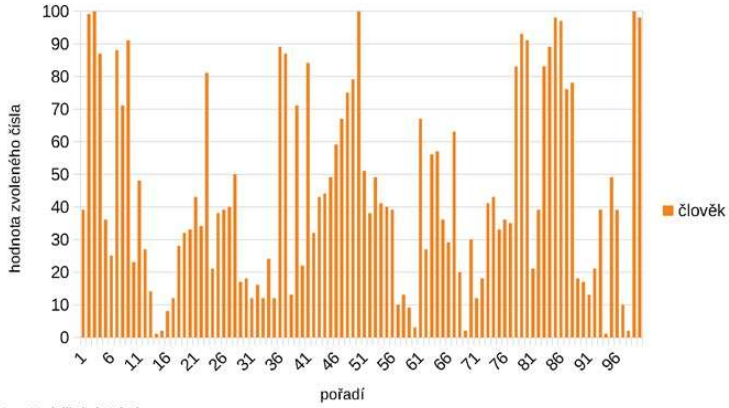
Filip Drábek (16 let)



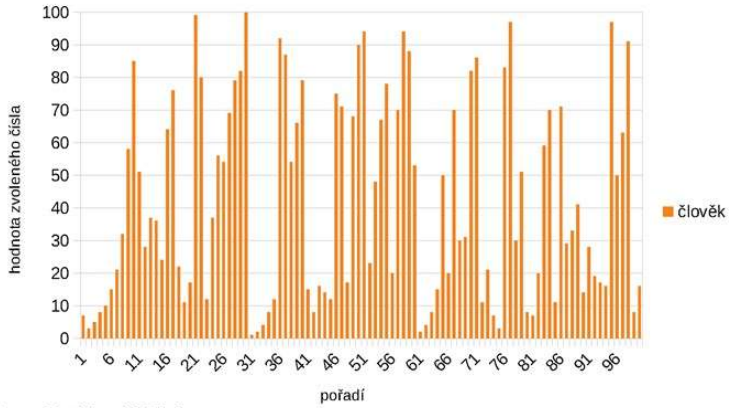
Jiří Rampouch (15 let)



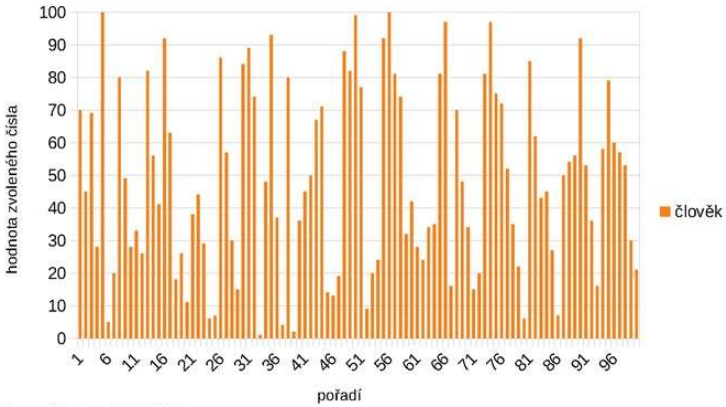
Petr Kubíček (43 let)



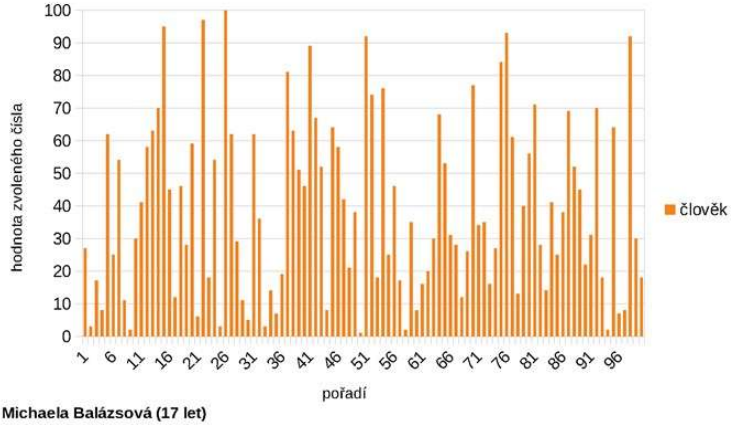
Jan Kubíček (16 let)



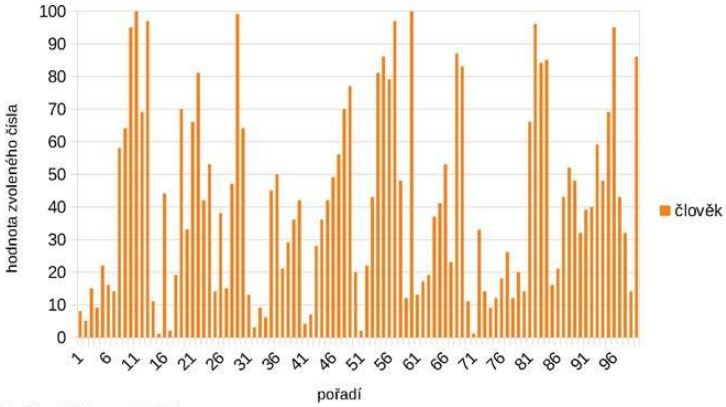
Ivana Martínková (15 let)



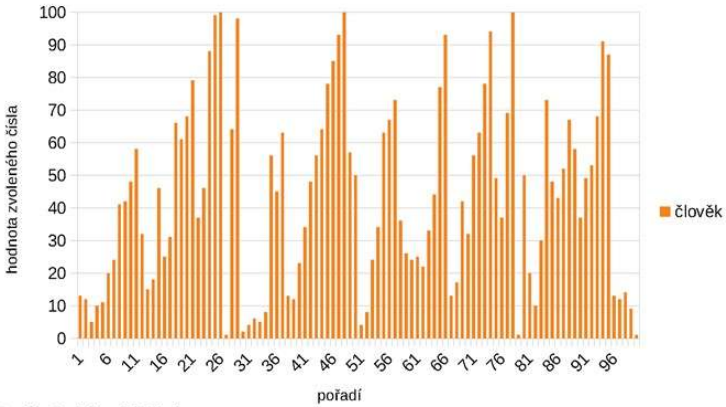
Tereza Bartovská (15 let)



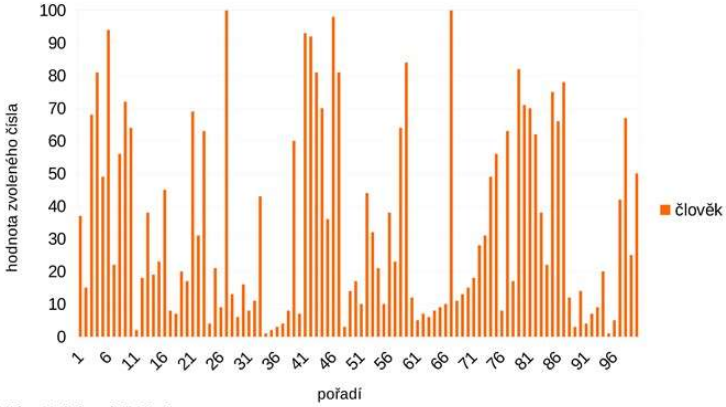
Michaela Balázsová (17 let)



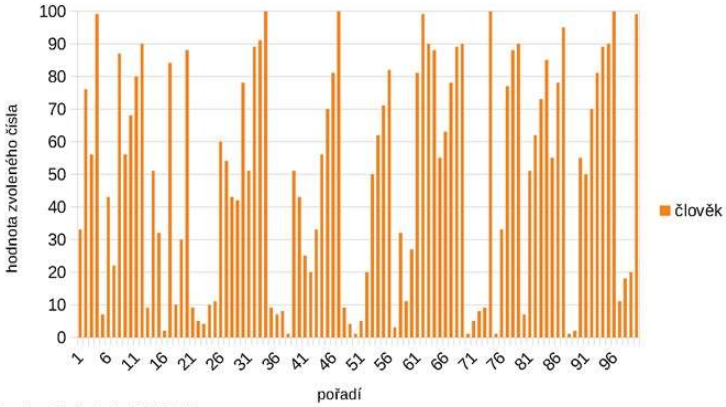
Kateřina Příplatová (15 let)



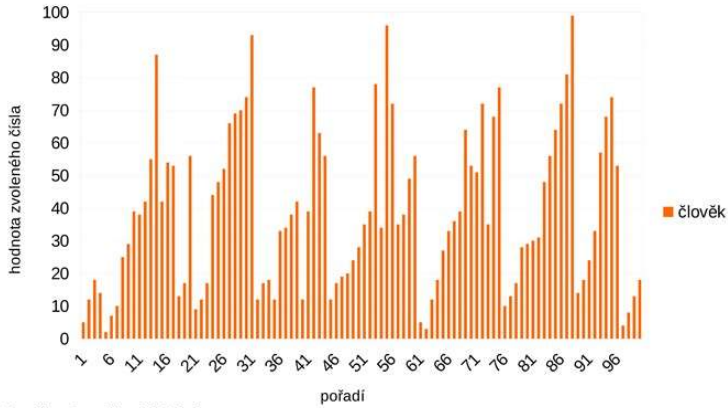
Denisa Holubová (16 let)



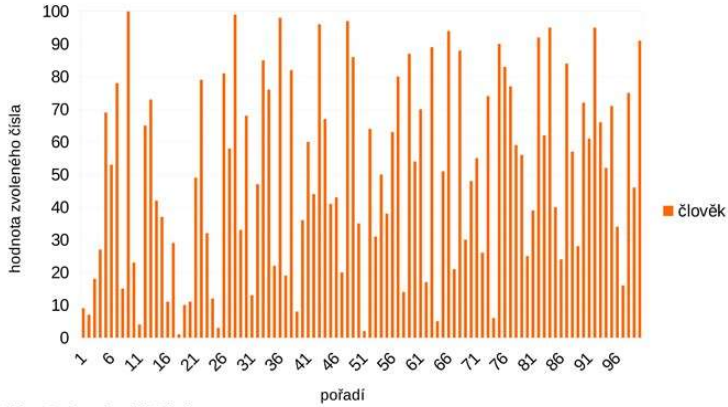
Klára Holubová (10 let)



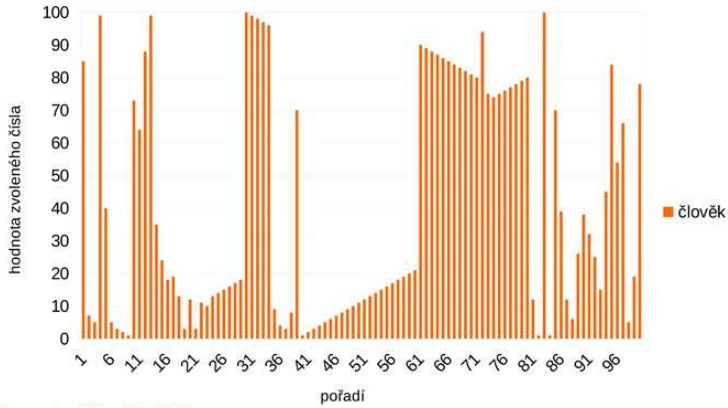
Andrea Nečekalová (16 let)



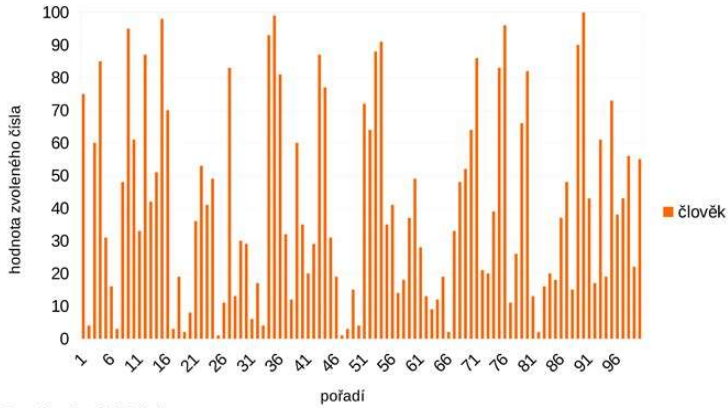
Kateřina Benešová (84 let)



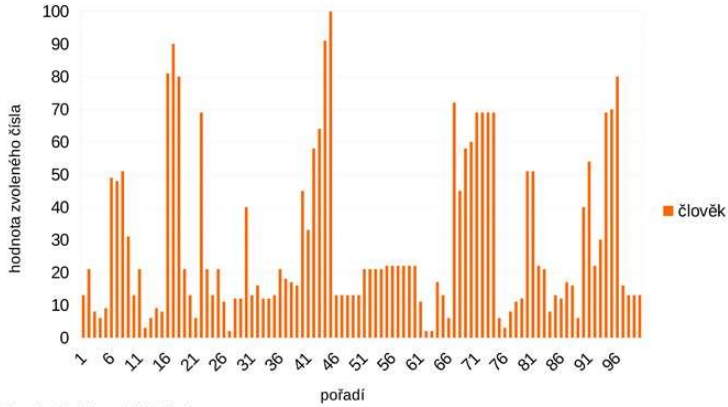
Klára Zachardová (16 let)



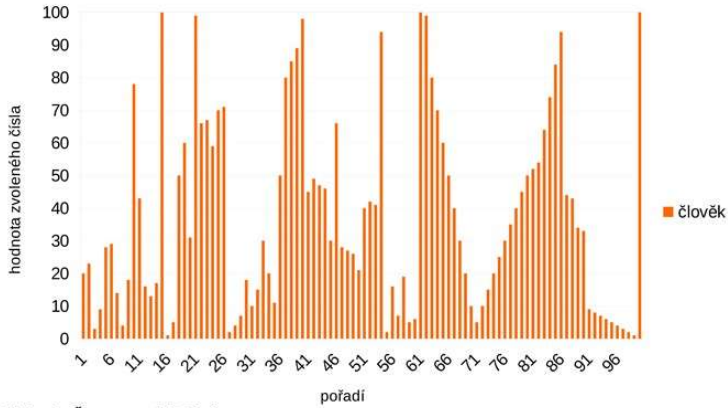
Tereza Lukášová (15 let)



Eva Kloubová (16 let)



Nicole Pichlerová (16 let)



Michaela Šprynarová (16 let)

COMPLETED SAMPLE QUESTIONNAIRE

Náhodné čísla zvolená člověkem – TEST 1

Autor: Vojta Maur

Jméno	Michaela
Příjmení	Baldrianová
Věk	17

Viděl(a) jsem výsledky ostatních testovaných subjektů.	ANO (NE)

ZADÁNÍ:
Vyplňte prázdné políčka v tabulce náhodnými čísly v rozsahu 1-100.
-Lze použít číslo 1 a číslo 100
-Vyplňujte tabulku postupně podle pořadí (buňky tabulky s šedou výplní)
-Čísla se mohou opakovat
-Čas na vyplnění tohoto testu není limitován

1.	27	21.	6	41.	89	61.	16	81.	71
2.	3	22.	97	42.	67	62.	20	82.	28
3.	17	23.	18	43.	52	63.	80	83.	14
4.	8	24.	54	44.	8	64.	68	84.	41
5.	62	25.	3	45.	64	65.	53	85.	25
6.	25	26.	100	46.	58	66.	31	86.	38
7.	54	27.	67	47.	42	67.	28	87.	69
8.	11	28.	29	48.	21	68.	12	88.	52
9.	2	29.	11	49.	38	69.	26	89.	45
10.	30	30.	5	50.	1	70.	77	90.	22
11.	41	31.	62	51.	92	71.	34	91.	31
12.	58	32.	36	52.	74	72.	35	92.	70
13.	63	33.	3	53.	18	73.	16	93.	18
14.	70	34.	14	54.	76	74.	27	94.	2
15.	95	35.	7	55.	25	75.	84	95.	64
16.	45	36.	19	56.	46	76.	93	96.	7
17.	12	37.	81	57.	17	77.	61	97.	8
18.	46	38.	63	58.	2	78.	13	98.	92
19.	28	39.	51	59.	35	79.	40	99.	30
20.	59	40.	46	60.	8	80.	56	100.	18

Irregular Breathing

March 2018

> Interactive or embedded content: khCWjid0QeU

This four-minute audio track features a recording of a dying cat. Two main sounds can be heard in the recording: irregular breathing and the less noticeable sound of a heartbeat.

From the Perspective of a Shell

March 2018

These videos focus on the perception of a shell—what does it feel and experience? Its view of the world is no less important than the human perspective! In the first video, you can see the original recording of the sea. In the second video, the average color of the individual frames of the original recording is displayed on the left side of the screen. On the right side of the screen is an RGB graph defining this color.

> Interactive or embedded content: mxfAcE8KYaQ

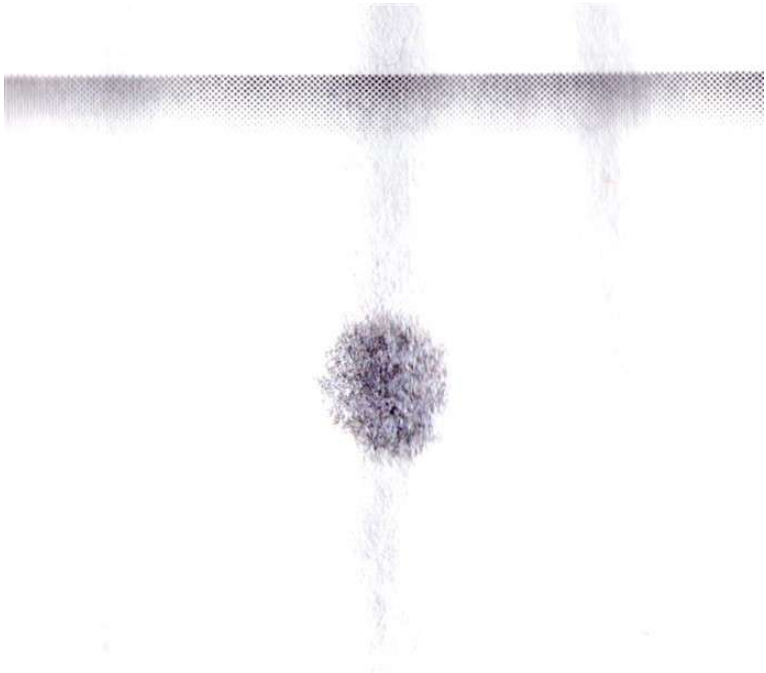
> Interactive or embedded content: lZknZa20ilY

Mold

November 2017

This series of photographs documents the mold in my German textbook. The photographs are arranged in the order in which the pages of the textbook follow one another. This results in random, interesting, and experimental compositions in each photograph.

chenland



t nicht da.
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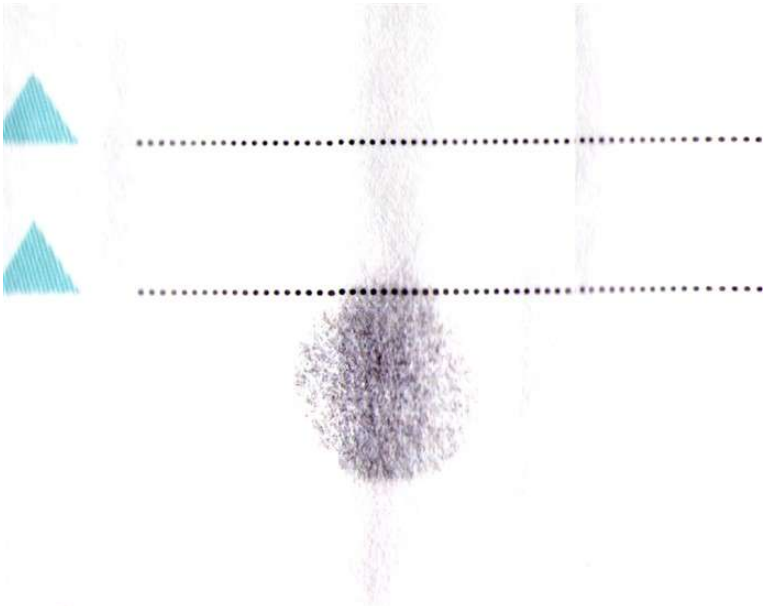

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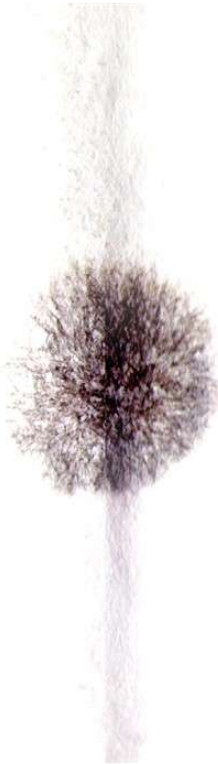
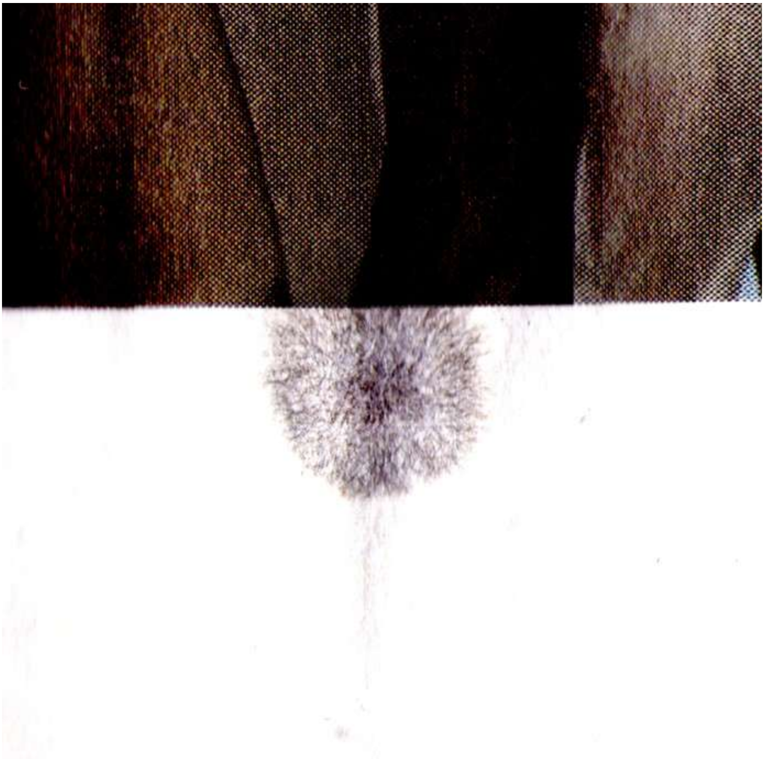




jetzt Pause

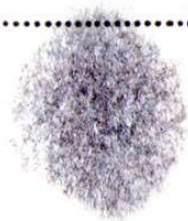
nglisch via e

)117 Berlin.

de/schritte-interna

Guten Morgen. M

Ah, hallo, Frau/H



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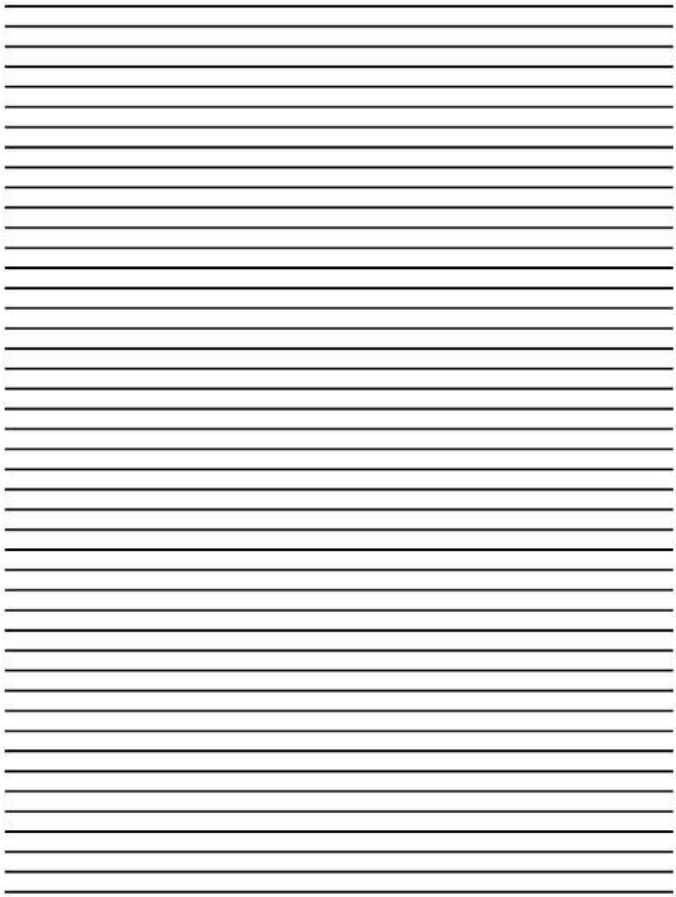
Disruption of the Regular Grid

October 2017

In this work, I sought to create a series of abstract pieces. I divided the project into four parts. In the first part, I created a basic regular grid; in the second part, I built upon this grid and began to slightly disrupt it, thereby creating a sense of unease. In the third part, I disrupted this regular geometric grid with irregular, contrasting organic shapes. And in the final, fourth part, I animated these organic shapes.

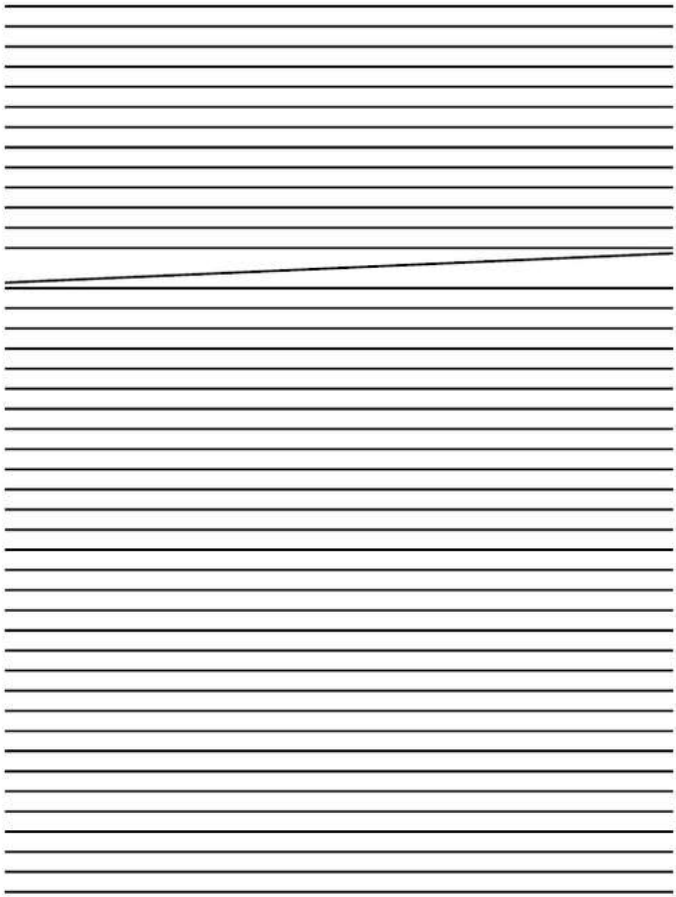
Part One:
BASIC GRID



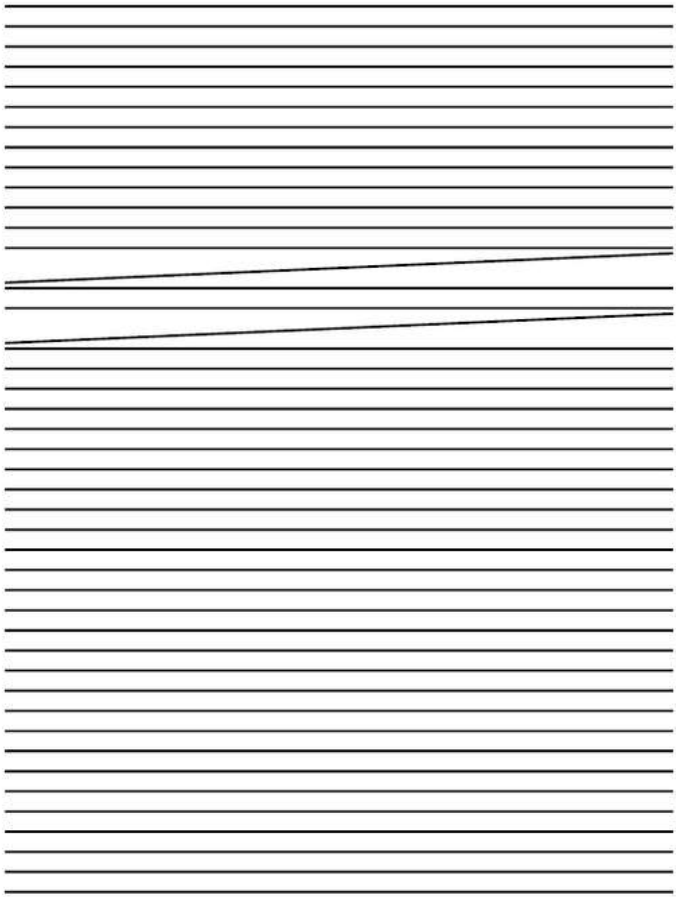
Abstrakce 1.0 - pravidelný rastr

Part Two:

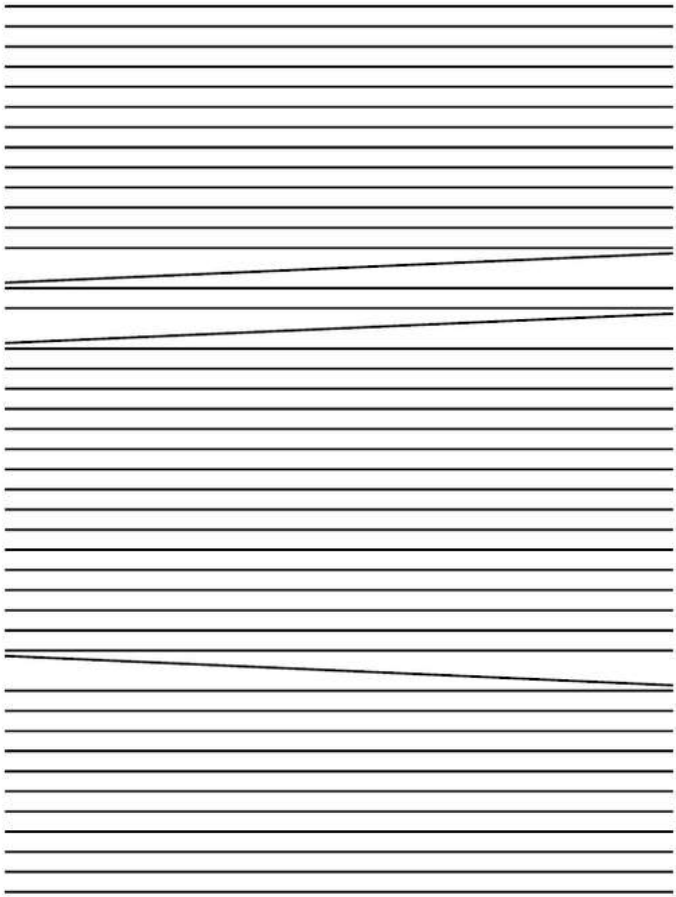
DISRUPTION OF THE GRID BY A SLIGHT DEVIATION



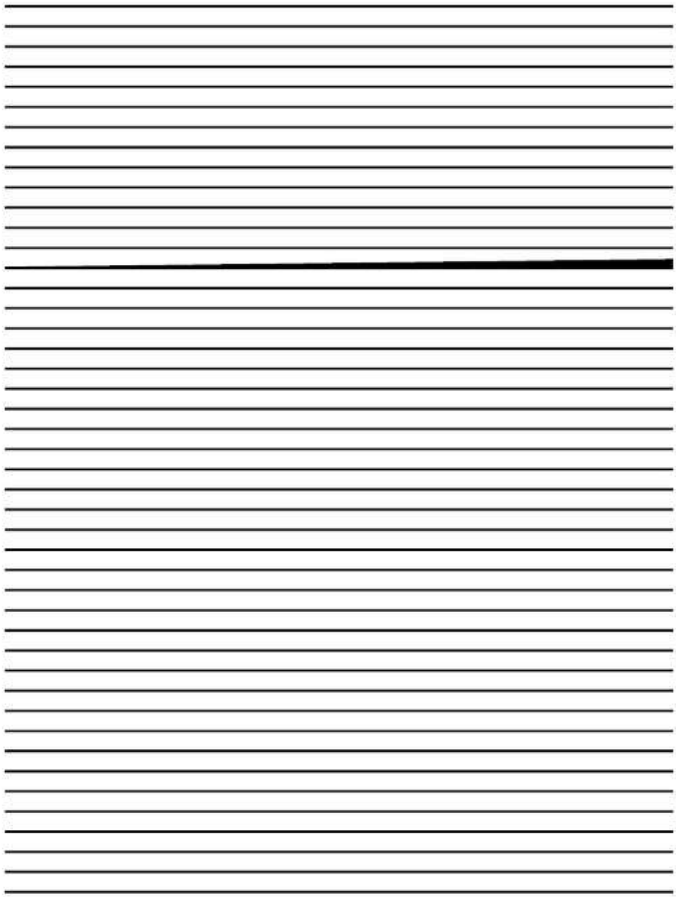
Abstrakce 2.0.0 - pravidelný rastr narušený jedním natočeným pruhem



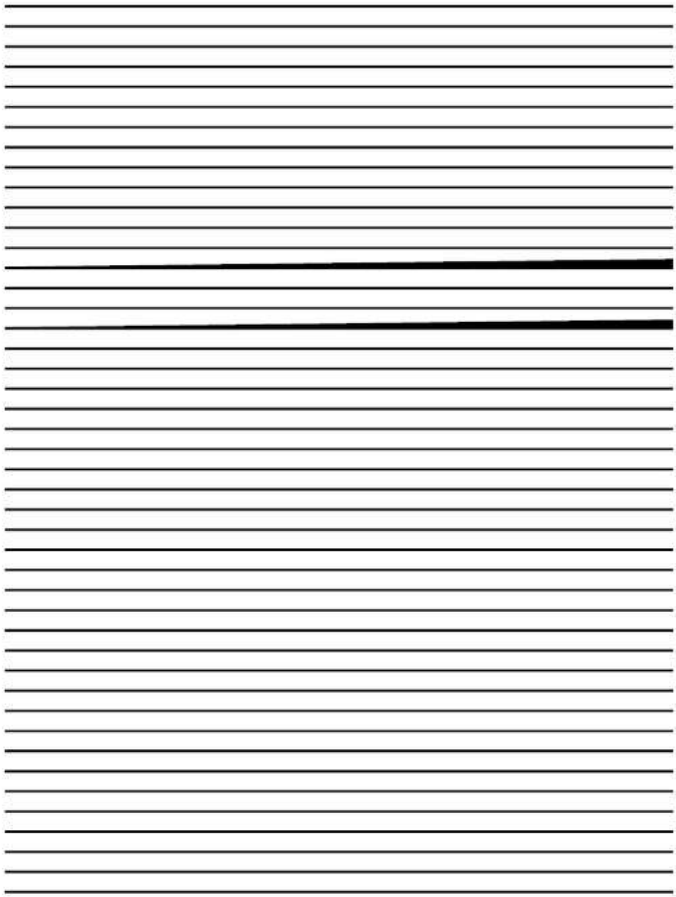
Abstrakce 2.0.1 - pravidelný rastr narušený dvěma natočenými pruhy



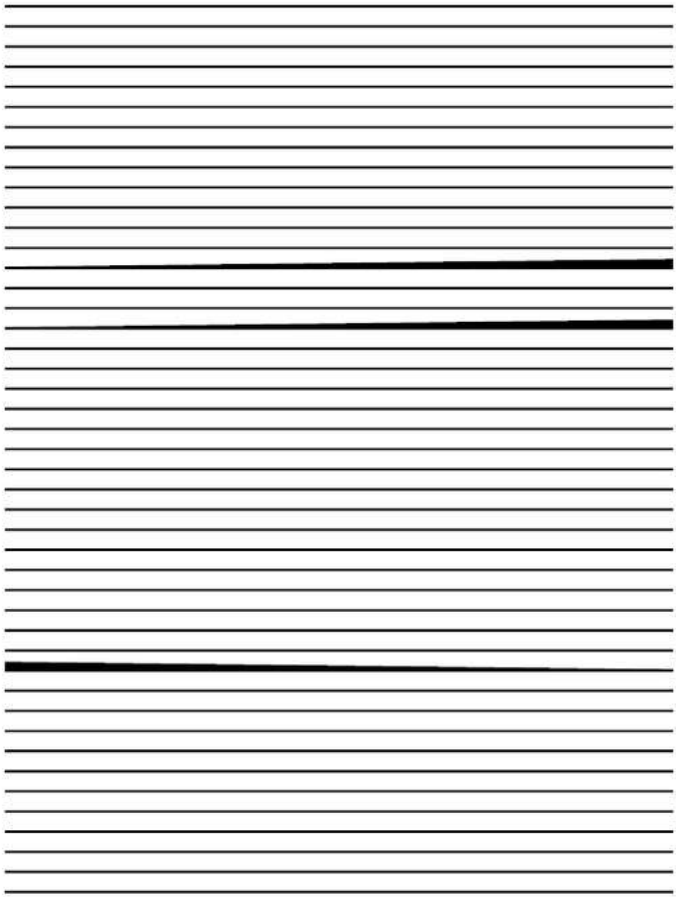
Abstrakce 2.0.2 - pravidelný rastr narušený třemi natočenými pruhy



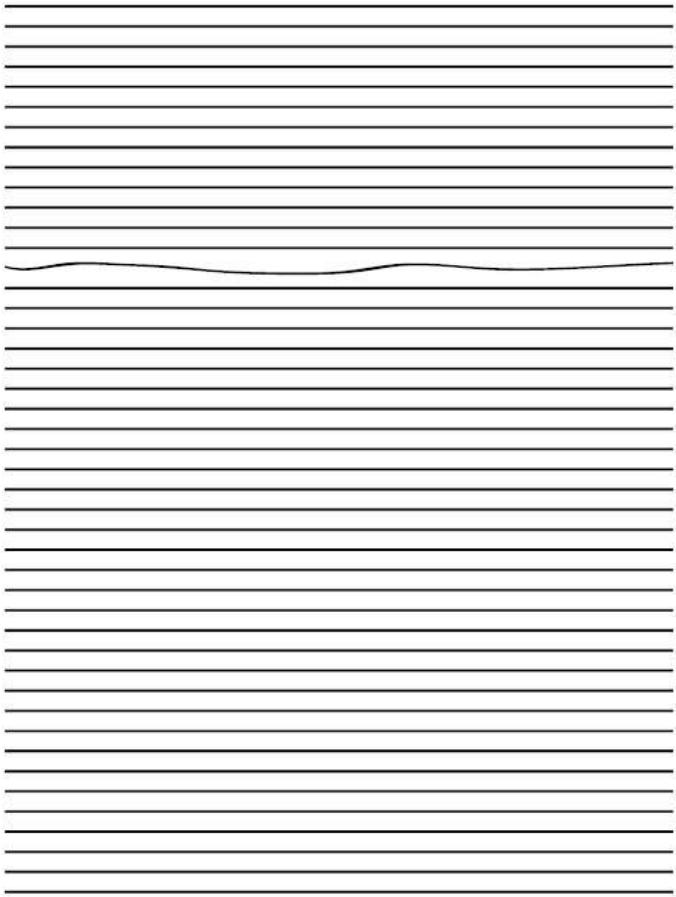
Abstrakce 2.1.0 - pravidelný rastr narušený jedním nepravidelným pruhem



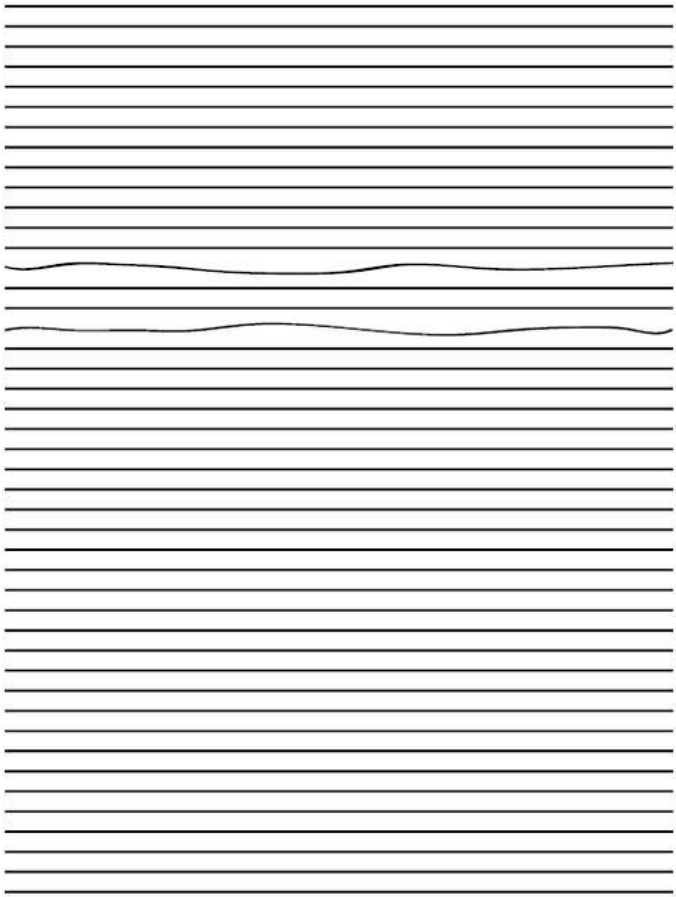
Abstrakce 2.1.1 - pravidelný rastr narušený dvěma nepravidelnými pruhy



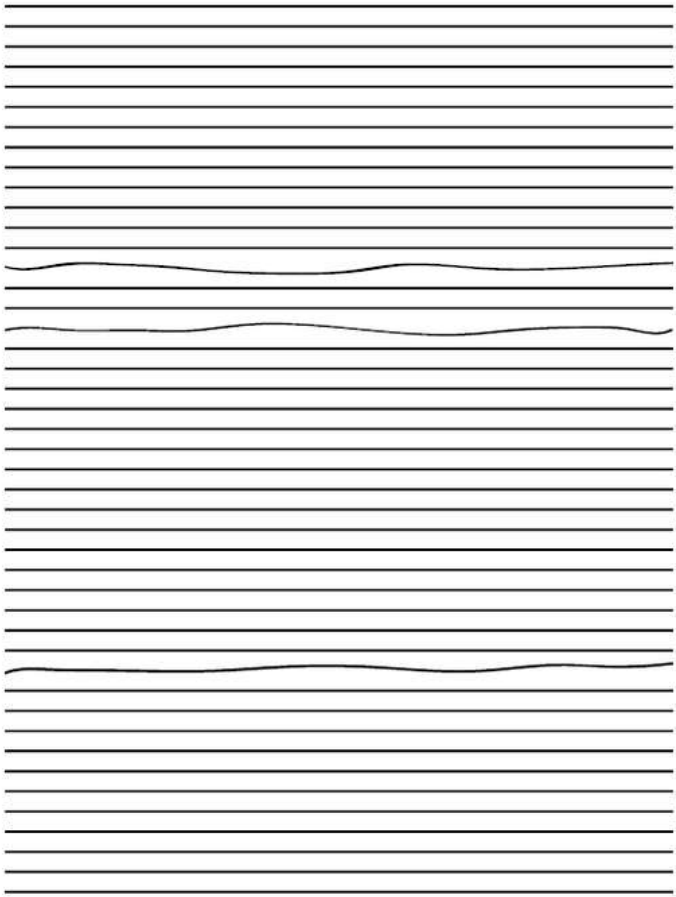
Abstrakce 2.1.2 - pravidelný rastr narušený třemi nepravidelnými pruhy



Abstrakce 2.2.0 - pravidelný rastr narušený jedním nepravidelným pruhem



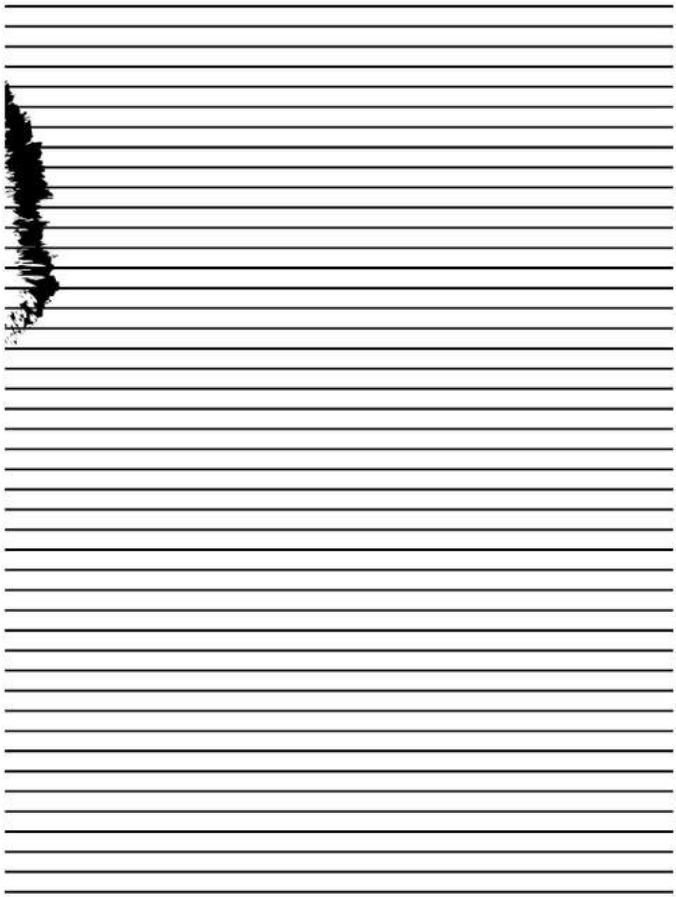
Abstrakce 2.2.1 - pravidelný rastr narušený dvěma nepravidelnými pruhy



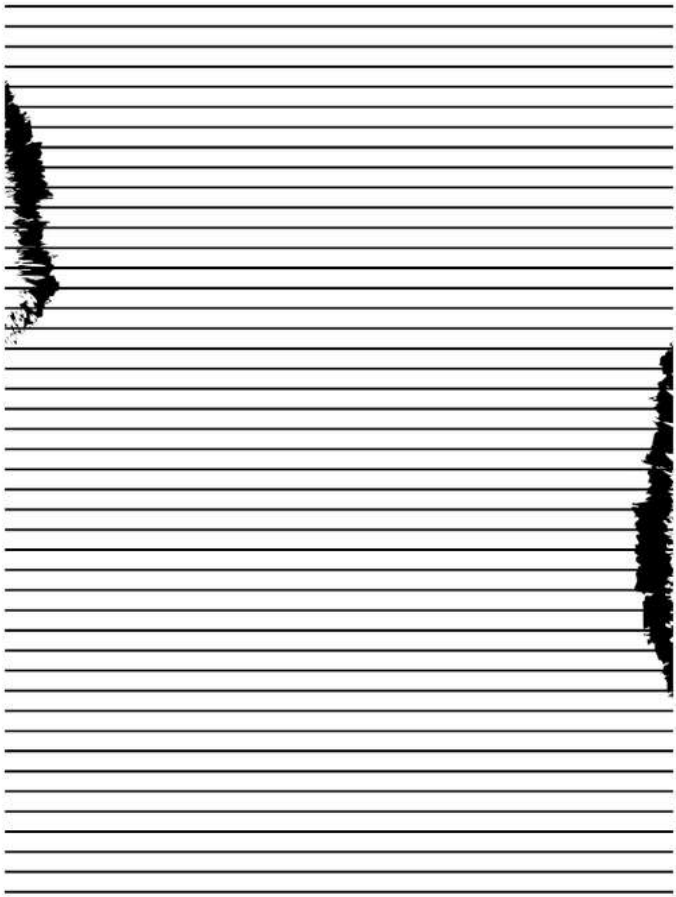
Abstrakce 2.2.2 - pravidelný rastr narušený třemi nepravidelnými pruhy

Part Three:

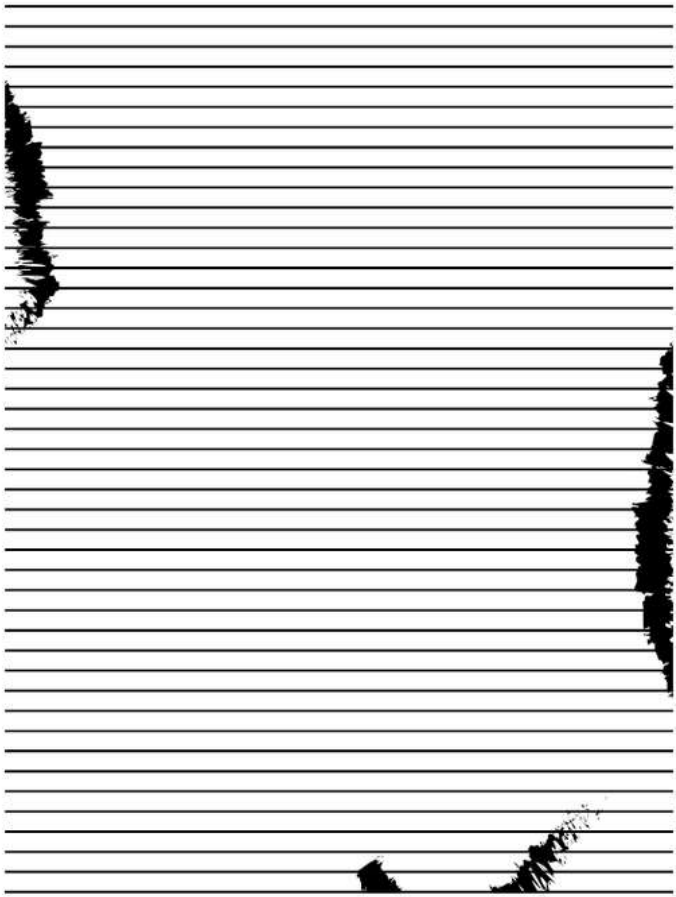
DISRUPTION OF THE GRID WITH ORGANIC SHAPES



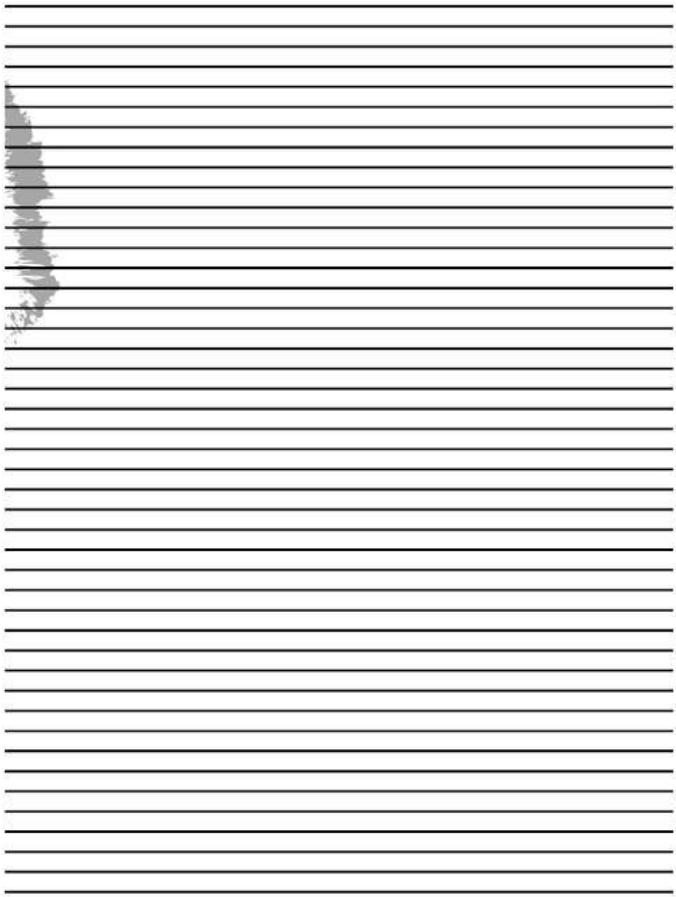
Abstrakce 3.0.0 - pravidelný rastr narušený jedním organickým tvarem



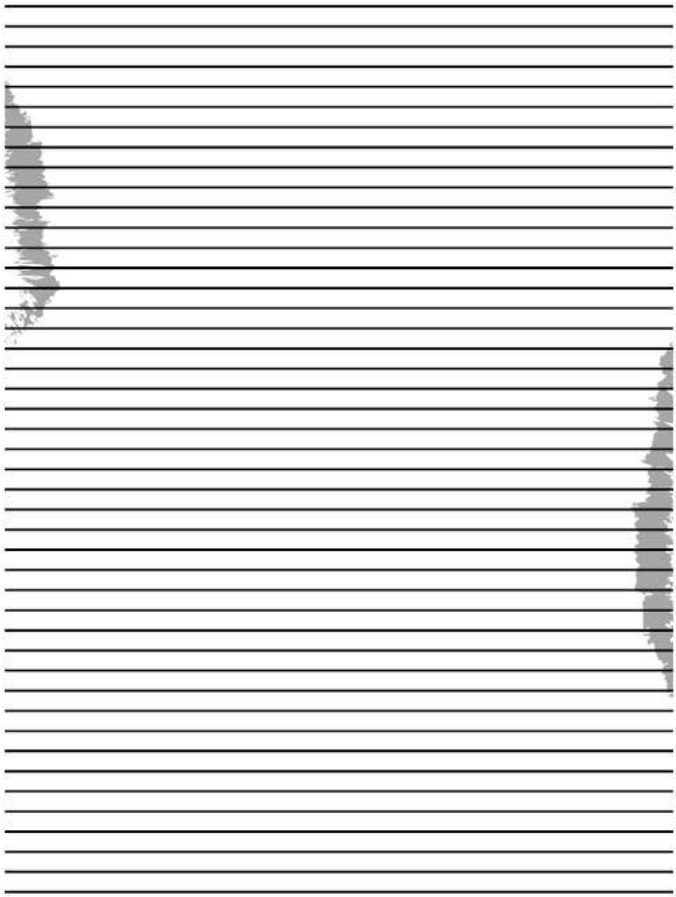
Abstrakce 3.0.1 - pravidelný rastr narušený dvouma organickými tvary



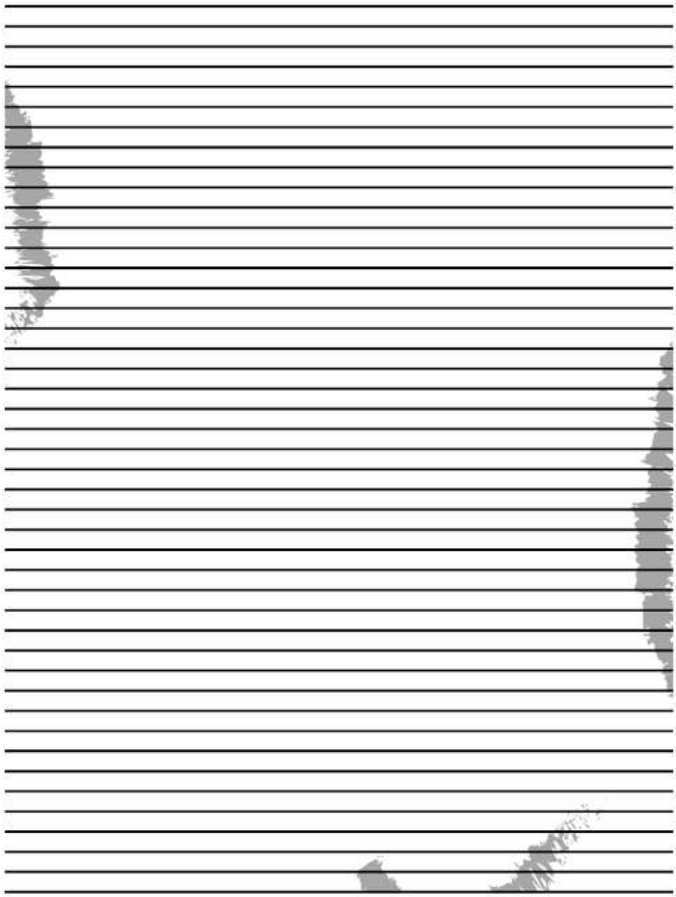
Abstrakce 3.0.2 - pravidelný rastr narušený třemi organickými tvary



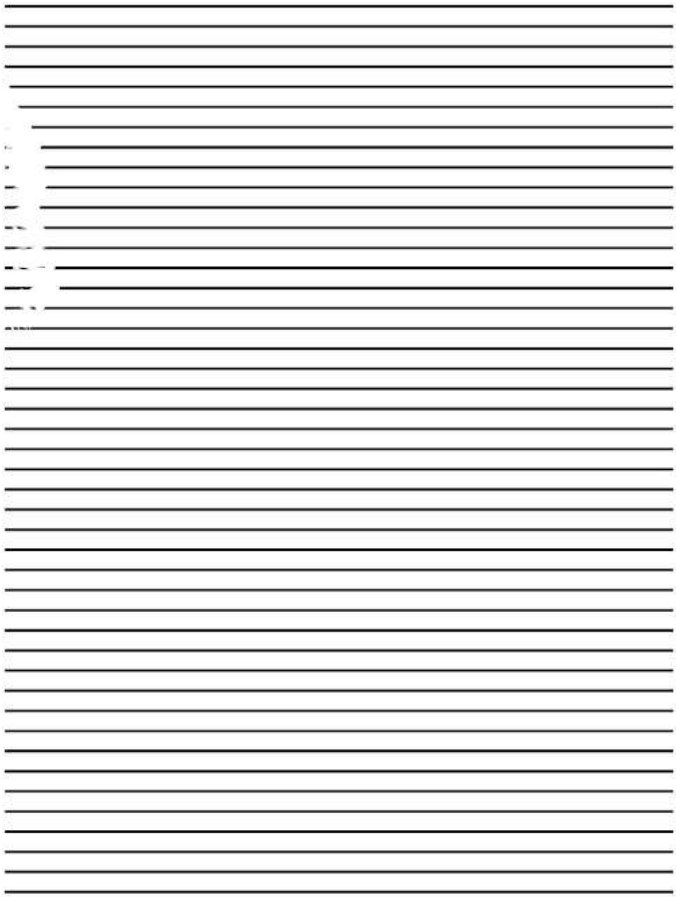
Abstrakce 3.1.0 - pravidelný rastr narušený jedním organickým tvarem



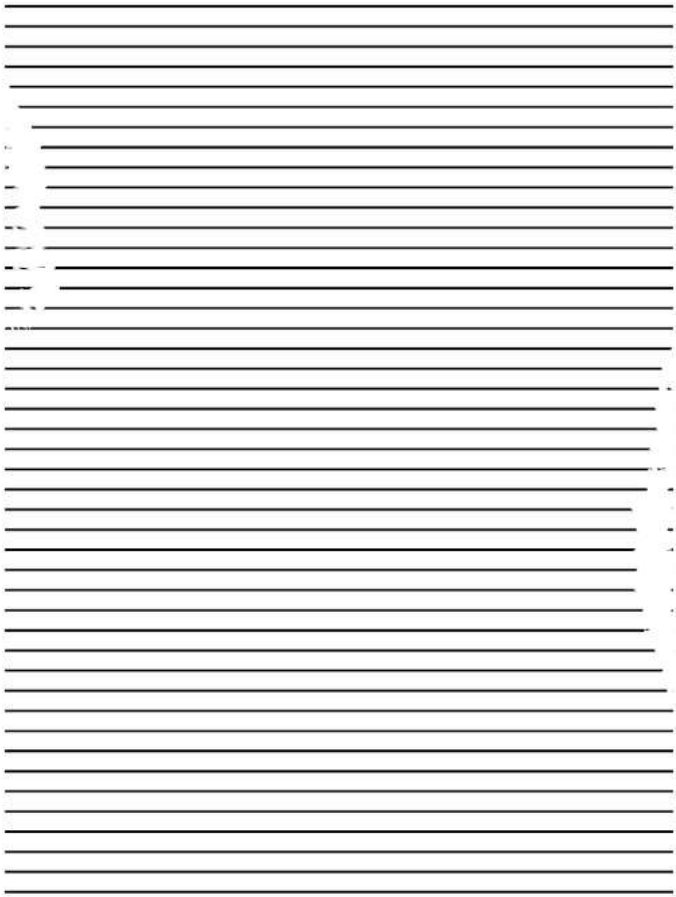
Abstrakce 3.1.1 - pravidelný rastr narušený dvouma organickými tvary



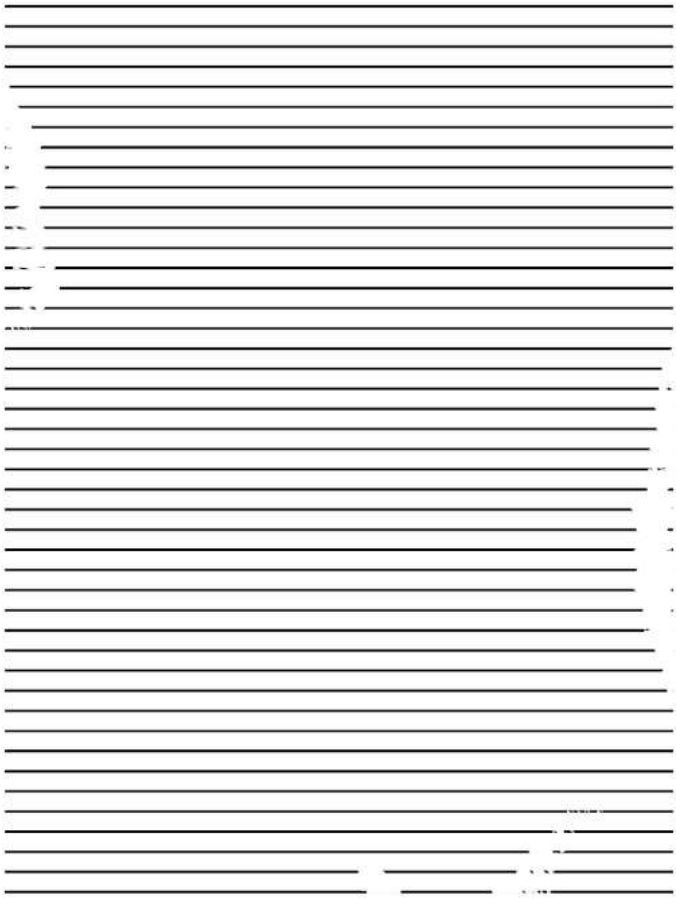
Abstrakce 3.1.2 - pravidelný rastr narušený třemi organickými tvary



Abstrakce 3.2.0 - pravidelný rastr narušený jedním organickým tvarem



Abstrakce 3.2.1 - pravidelný rastr narušený dvouma organickými tvary



Abstrakce 3.2.2 - pravidelný rastr narušený třemi organickými tvary

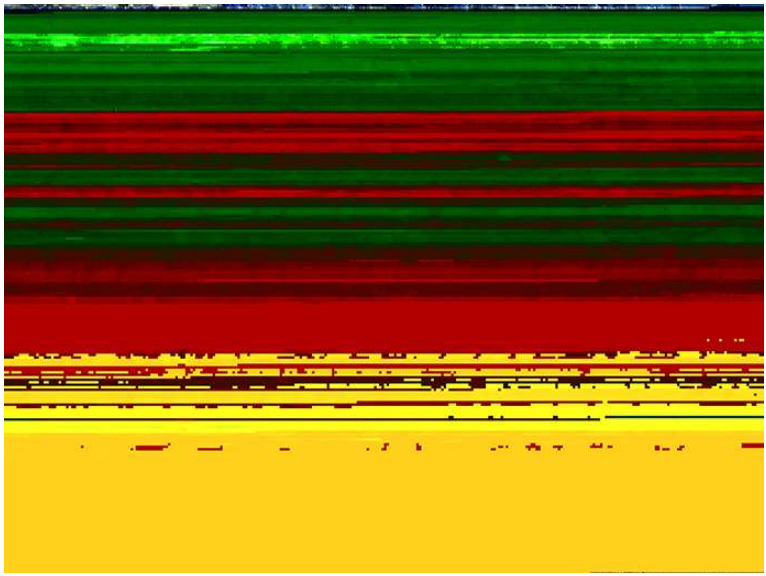
Part Four:

DISRUPTION OF THE GRID BY ANIMATED ORGANIC SHAPES

> Interactive or embedded content: Gz2IRKKnkno

Resurrection

April 2017



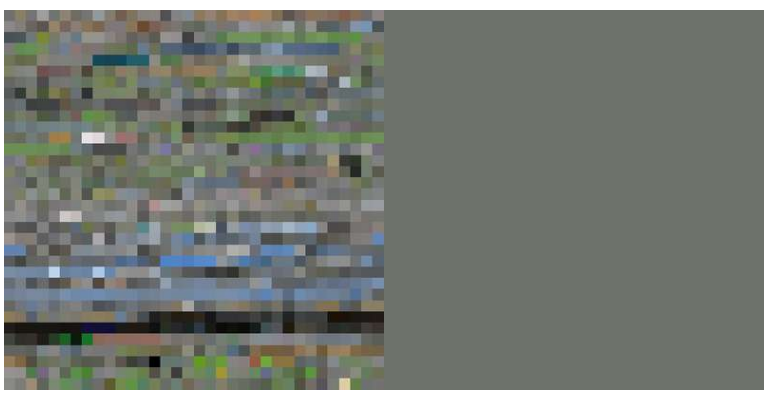
In May 2016, I took a photo of a local cemetery in Morocco. In the ANSI code of the photo, I replaced all the crosses (†) with asterisks (*). I then saved the modified photo.

Color Average

April 2017

The left side of the image contains 1,156 photographs arranged in a 34x34-pixel grid. Each colored pixel represents the average color of a single photograph from a given country. On the right side of the image is the average color of all pixels from the left side—that is, the average color of all photographs from a given country.

Czech Republic

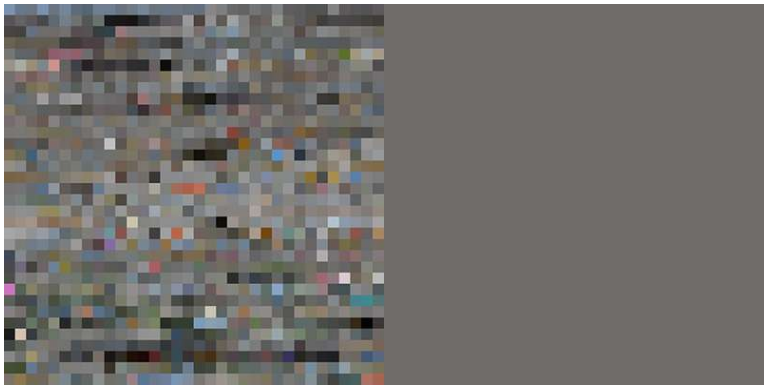


China

Ecuador

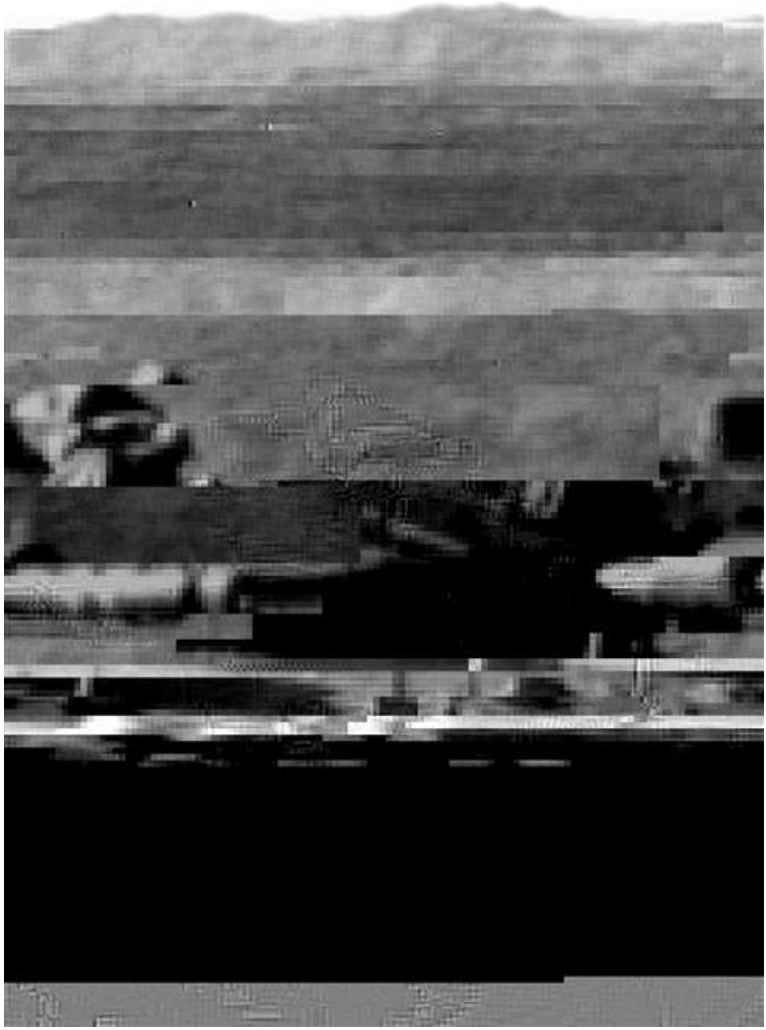
Kenya

Mexico



Tank

April 2017



> Interactive or embedded content: tank-dokument.pdf

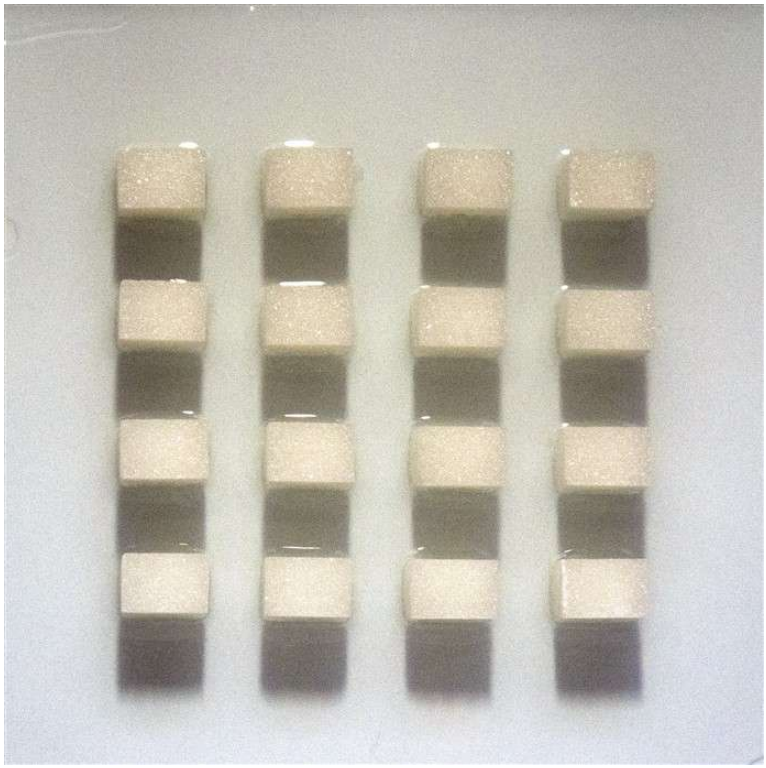
In December 2012, I photographed a battle tank in the Negev Desert in Israel. In the ANSI code of the photo, I replaced all asterisks (*) with crosses (†). I then saved the modified photo.

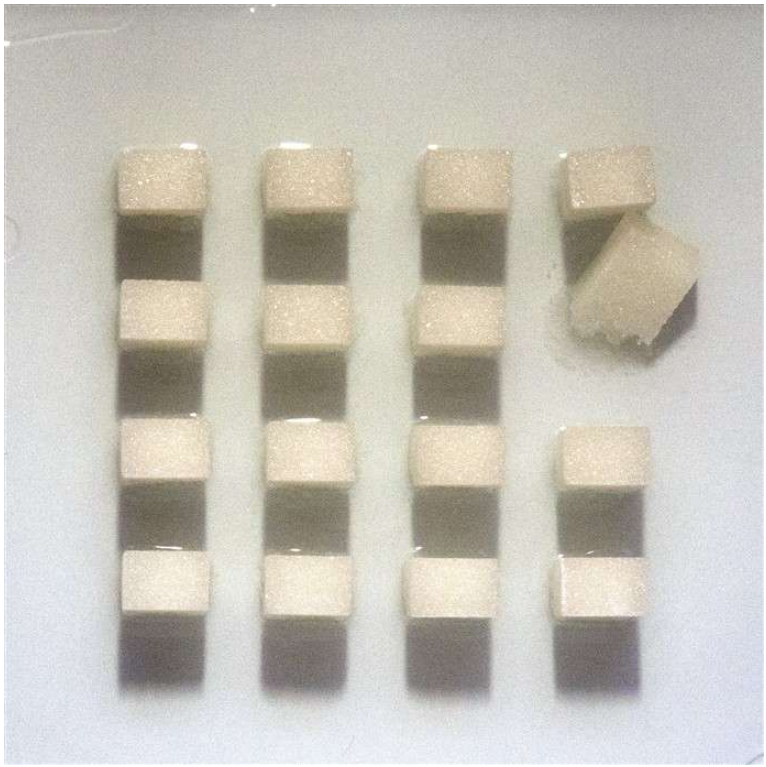
Sugar Cubes

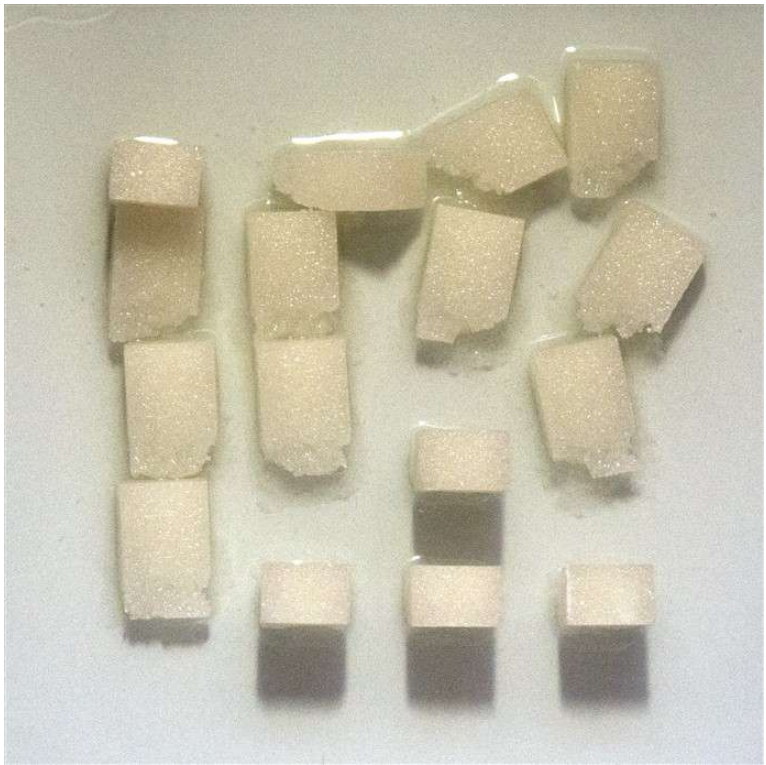
March 2017

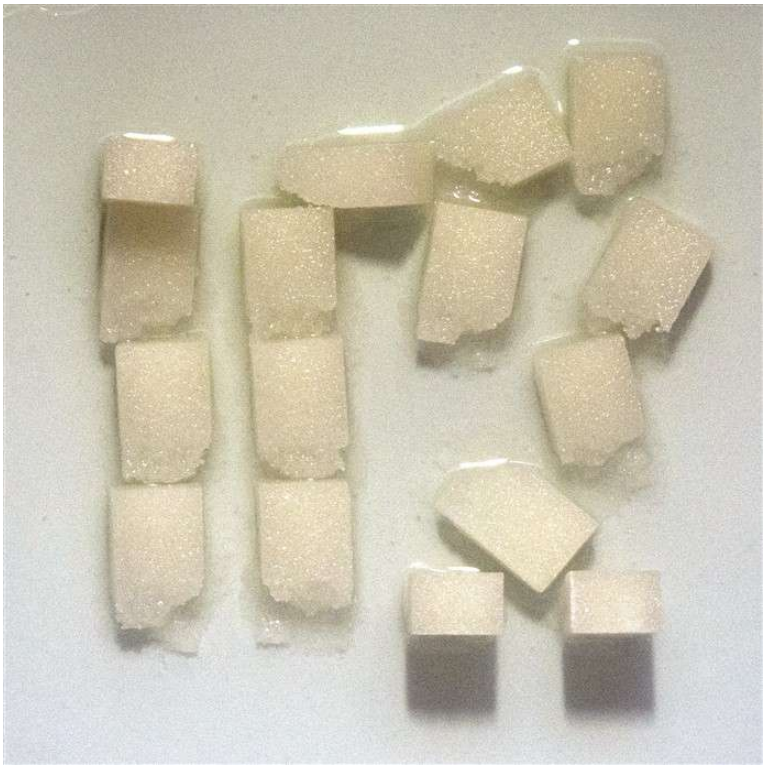
This series of photographs was created during talent auditions at the Secondary Vocational School of Commerce, Applied Arts, and Design in Pilsen (Nerudova 33).

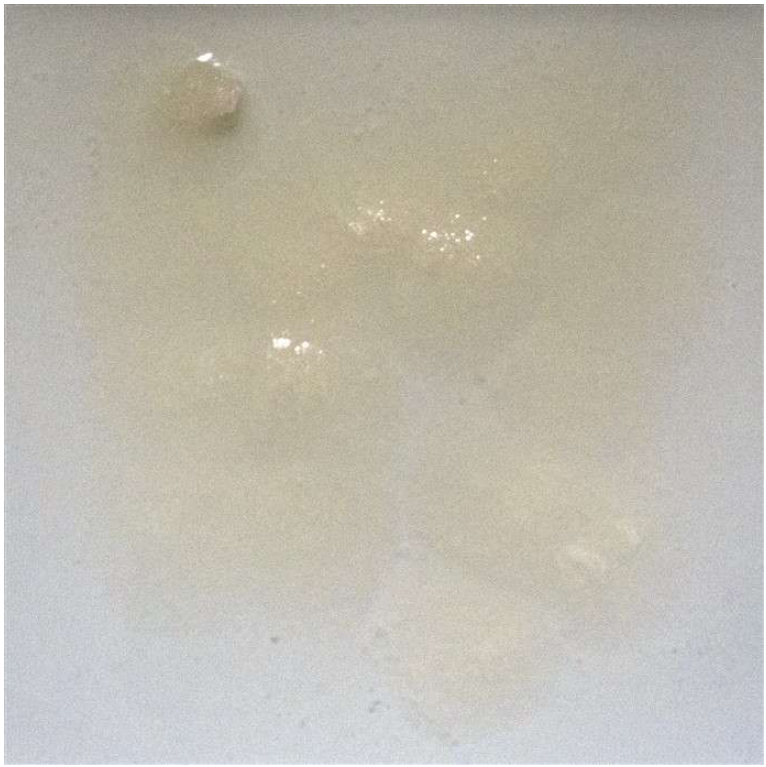
For the photography portion of the auditions, we were allowed to bring our own objects, but their number and size were limited. I brought a box of sugar cubes, which I arranged on a plate in a regular grid and then poured water over them. The sugar cubes gradually dissolved, crumbled, and fell randomly.











Street Art Library

March 2017

All around us, there are plenty of interesting street art pieces, ranging from small stickers and graffiti-covered walls to various types of 3D objects. Since the creators of these works must remain anonymous due to legal restrictions, the world of street art is completely altruistic and separate from the commercial world. The street art we see almost everywhere in the city usually stays very current. New street art pieces cover up the old ones; paint peels away along with the plaster; 3D objects fall victim to vandalism; and stickers eventually peel off or fade due to environmental factors. It's a natural process, a matter of time, but I believe that some street art deserves to have its lifespan extended.

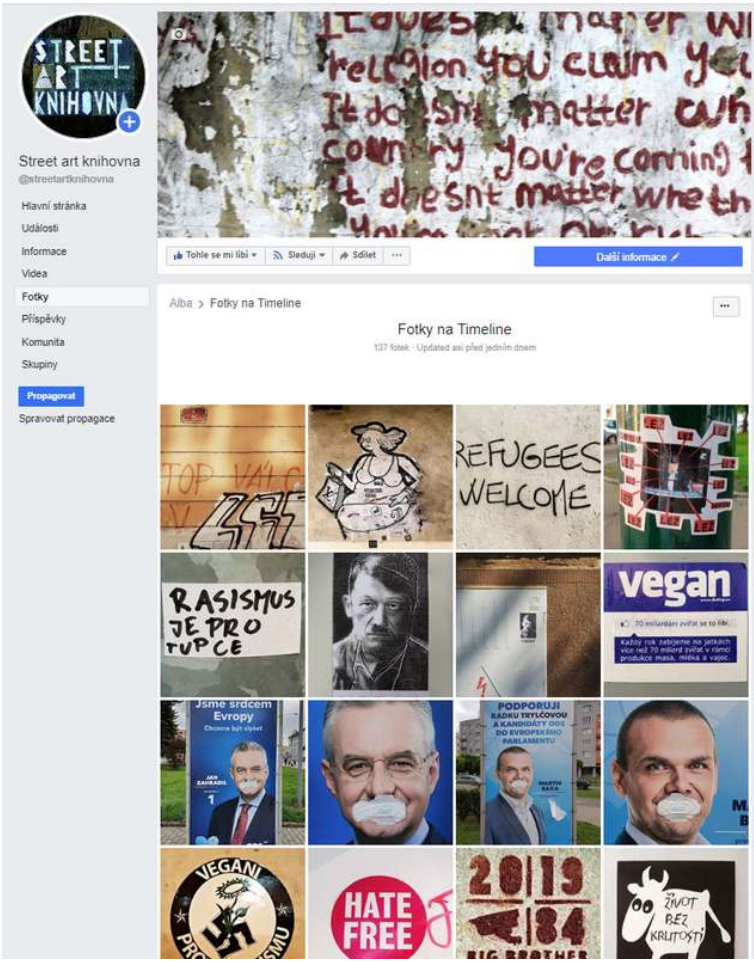
That's why I decided to document the most interesting works. To that end, in 2017 I created a Facebook page called "Street Art Library," to which I've been adding posts ever since. To reach a wider audience, I later created an Instagram page with the same name.

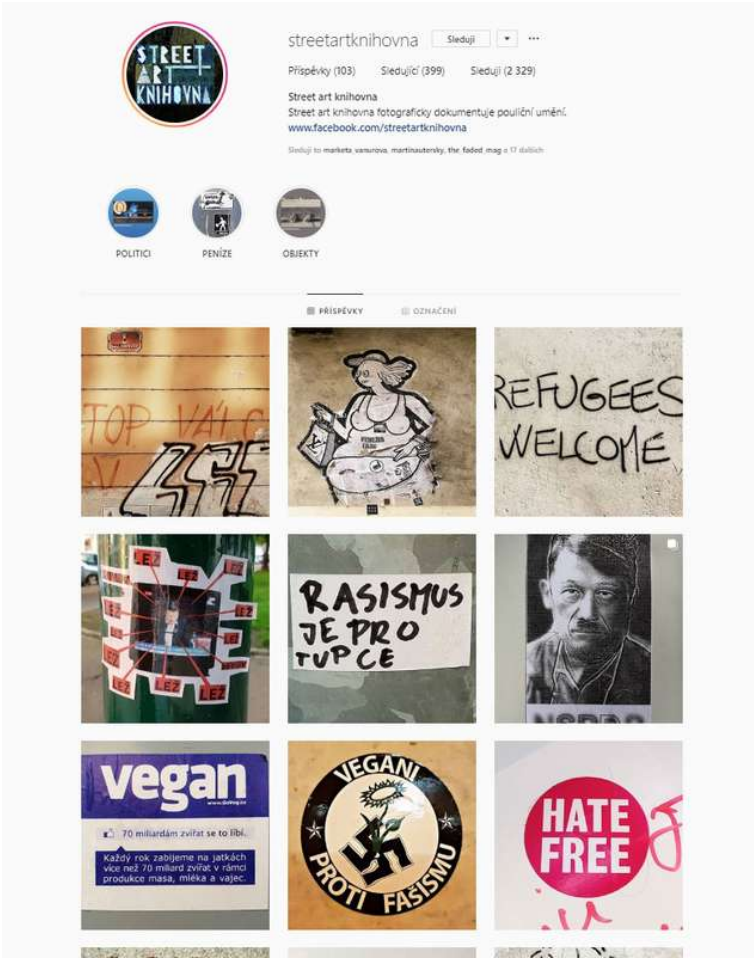
On these pages, I try to feature mainly works that convey a specific idea, while I view the aesthetic aspect of the work as secondary.

Street Art Library (Facebook):
www.facebook.com/streetartknihovna

Street Art Library (Instagram):

www.instagram.com/streetartknihovna




STREET ART KNIHOVNA
streetartknihovna
Sleduji
Příspěvky (103)
Sledující (399)
Sleduji (2 329)
Street art knihovna
Street art knihovna fotograficky dokumentuje pouliční umění.
www.facebook.com/streetartknihovna
POLITICI
PENÍZE
OBJEKTY
PŘÍSPĚVKY
OZNAČENÍ
REFUGEES WELCOME
RASISMUS JE PRO TUPCE
vegan
70 miliardám zvířat se to líbí.
Každý rok zabíjeme na jatkách více než 70 miliard zvířat v rámci produkce masa, mléka a vajec.
VEGANI PROTI FAŠISMU
HATE FREE

Google App

November 2016

This short video highlights the nonsensical permissions of the Google App (the app comes preinstalled not only on Samsung phones, and it cannot even be uninstalled). An overview of permissions can be found on Android phones at `Nastavení/Správce aplikací/STAŽENÉ/Aplikace Google`.

> Interactive or embedded content: UOvJLnj2McU

From the City to Randomness

January 2016

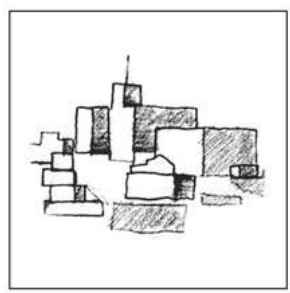
In 2016, as part of my preparation for art high school at ZUŠ Plzeň, Jagellonská 14, I was assigned the task of creating a graphic stylization of the city. I was curious to see just how far this stylization could go, so I continued working on this project over the following years up to the present (2019). Starting with a simple stylization of the city, I moved on to disrupting regular grids, which created remarkable tension from an artistic perspective. I then attempted to incorporate chance into this project, but I was unable to discover anything resembling true chance—something without any cause. Determinism always stood in my way, so I relied solely on pseudo-randomness (where the cause can be determined, but the result is difficult to predict and therefore appears random). Some paths led me to a dead end, so I had to seek a different perspective and other graphic solutions, such as programming the visual output, the moiré effect, the Fibonacci sequence, etc. The series of images below is a summary of these works.

Mombasa-fotografie 2015

Mombasa-skica 1

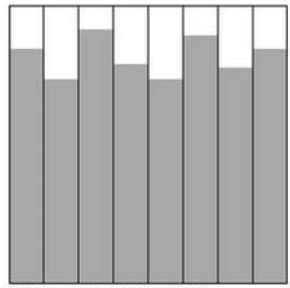
Mombasa-skica 2

Mombasa-skica 3

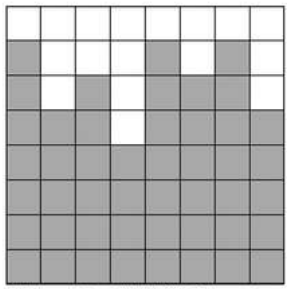


Mombasa-skica 4

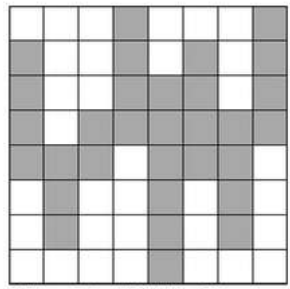
Stylizace města



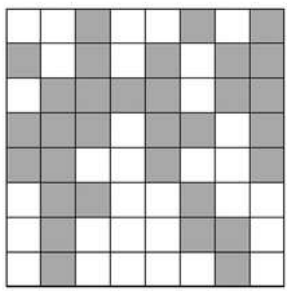
Stylizace města-vertikální dělení 1



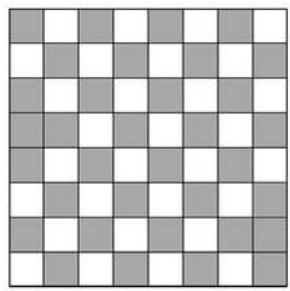
Stylizace města-vertikální dělení 2



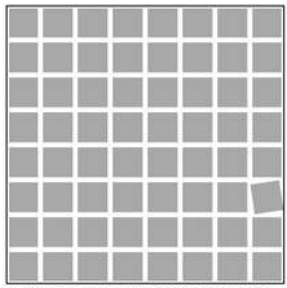
Stylizace města-vertikální dělení 3



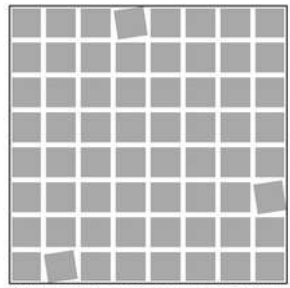
Stylizace města-vertikální dělení 4



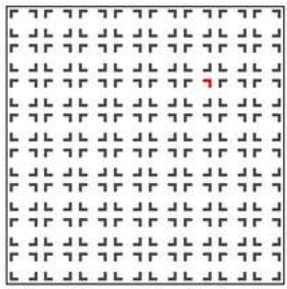
Stylizace města-narušení pravidelného rastru na dvou místech



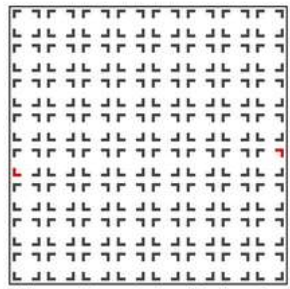
Stylizace města-narušení pravidelného rastru rotací na jednom místě



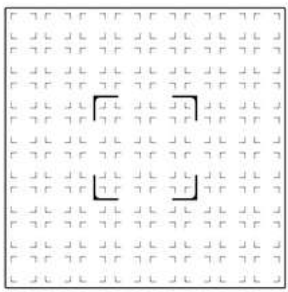
Stylizace města-narušení pravidelného rastru rotací na třech místech



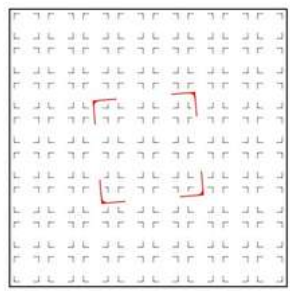
Stylizace města-narušení pravidelného rastru barvou na jednom místě



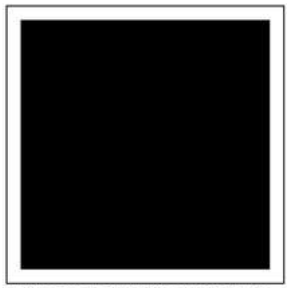
Stylizace města-narušení pravidelného rastru barvou na dvou místech



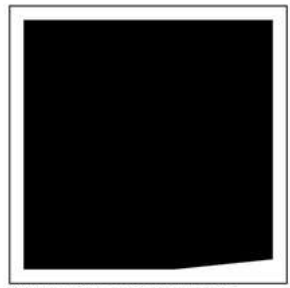
Stylizace města-narušení pravidelného rastru zvětšeným tvarem



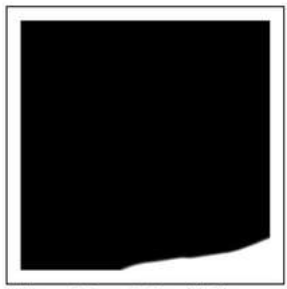
Stylizace města-narušení pravidelného rastru rotovaným barevným zvětšeným tvarem



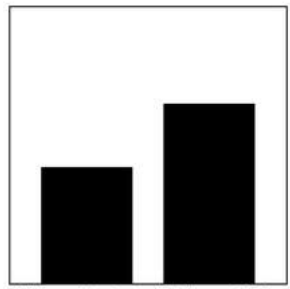
Stylizace města-pravidelný geometrický tvar



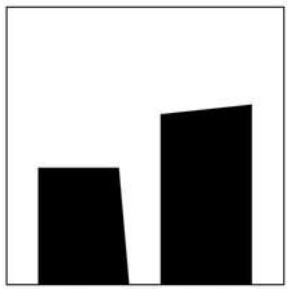
Stylizace města-narušení pravidelného geometrického tvaru 1



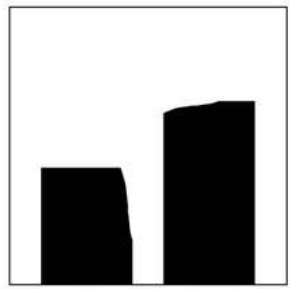
Stylizace města-narušení pravidelného geometrického tvaru 2



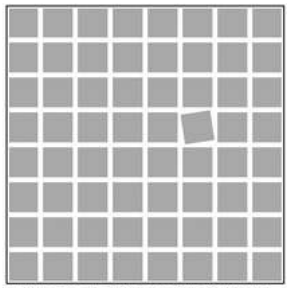
Stylizace města-dva pravidelné geometrické tvary



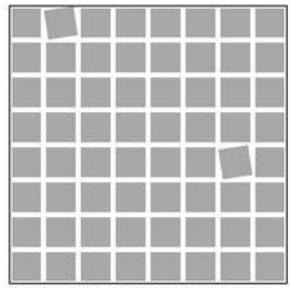
Stylizace města-narušení pravidelných geometrických tvarů 1



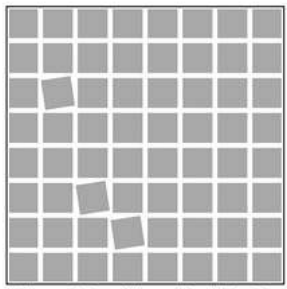
Stylizace města-narušení pravidelných geometrických tvarů 2



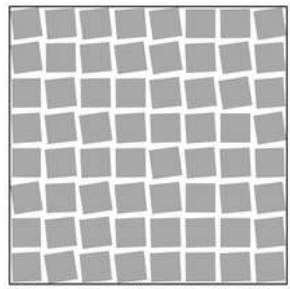
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo o -9° na jednom místě



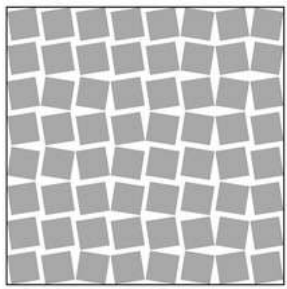
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo o -9° na dvou místech



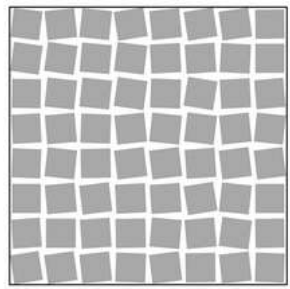
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo o -9°na třech místech



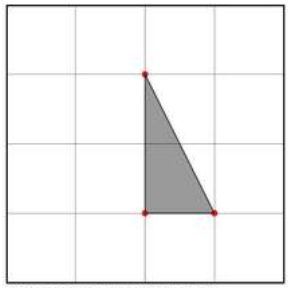
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo v rozmezí -9° až 0° na všech místech



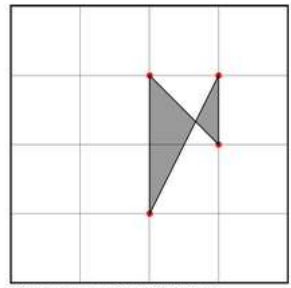
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo nebo vpravo vždy o 9° na všech místech



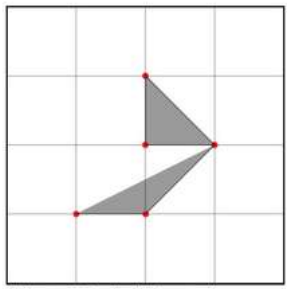
Stylizace města-použit generátor náhodných čísel-narušení pravidelného rastru rotací vlevo nebo vpravo v rozmezí -9° až +9° na všech místech



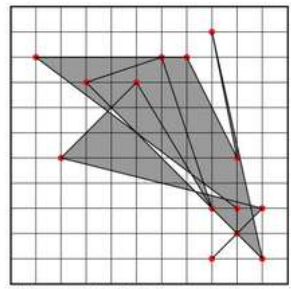
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 9: 8, **9**, 2, **9**



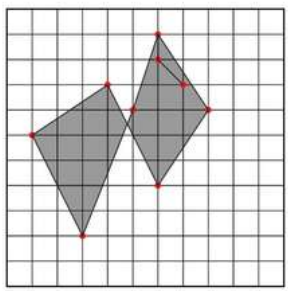
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 9: **6**, 3, 8, 2, **6**



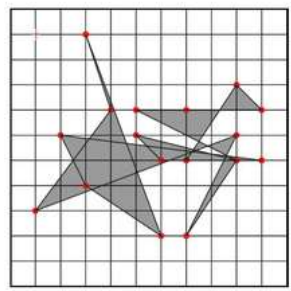
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 9: 7, 8, **6**, 2, 5, **6**



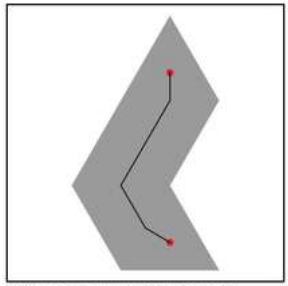
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 100: **100**, 8, 59, 17, 11, 79, 89, 98, 80, 52, 25, 78, 16, 23, **100**



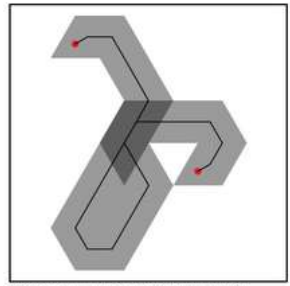
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 100: 27, 16, **6**, 48, 66, 24, 41, 83, 35, **6**



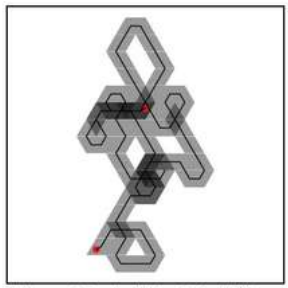
Stylizace města-náhodný tvar v poli souřadnic 3x3-náhodná čísla 1 až 100: 57, 29, 40, 35, **59**, 87, 49, 71, 34, 3, 86, 63, 42, 60, 56, 45, 37, **59**



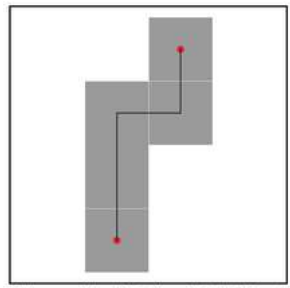
Stylizace města-náhodný tvar tvořený 5 trojúhelníky



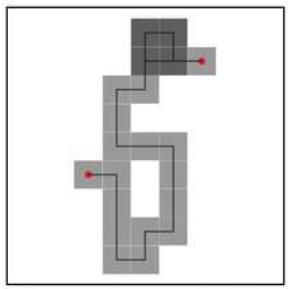
Stylizace města-náhodný tvar tvořený 25 trojúhelníky



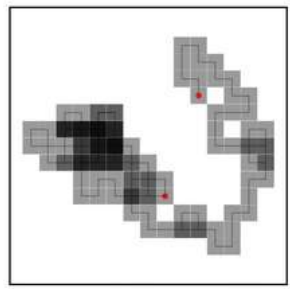
Stylizace města-náhodný tvar tvořený 125 trojúhelníky



Stylizace města-náhodný tvar tvořený 5 čtverci

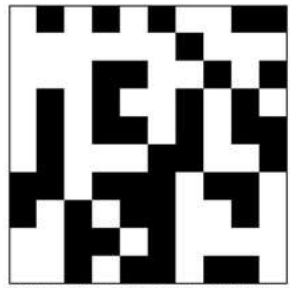


Stylizace města-náhodný tvar tvořený 25 čtverci

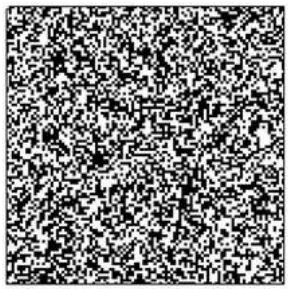


Stylizace města-náhodný tvar tvořený 125 čtverci

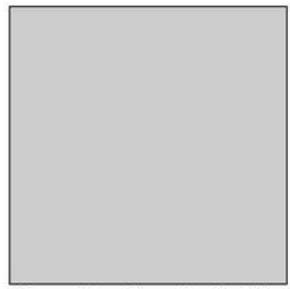
Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: černý nebo bílý-jedno pole



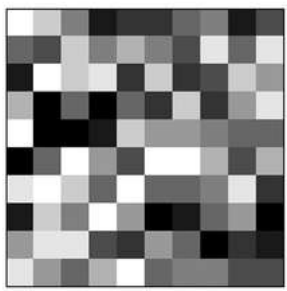
Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: černý nebo bílý-sto polí



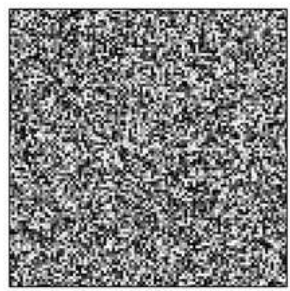
Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: černý nebo bílý-deset tisíc polí



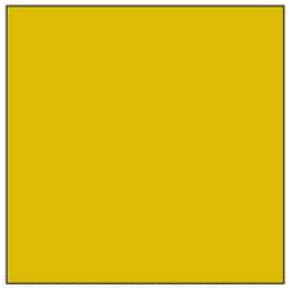
Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: jedenáct odstínů šedi-jedno pole



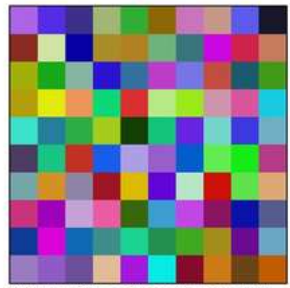
Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: jedenáct odstínů šedi-sto polí



Stylizace města-použit generátor náhodných čísel-určení barevnosti rastru: jedenáct odstínů šedi-deset tisíc polí

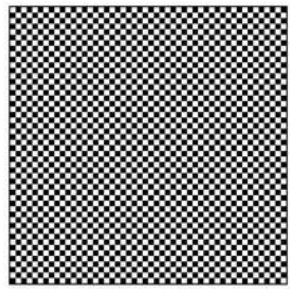


Stylizace města-použit generátor náhodných čísel: náhodná barva-jedno pole

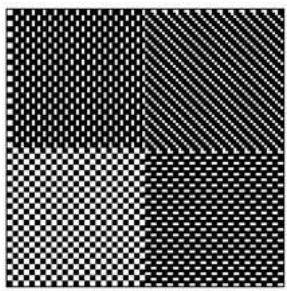


Stylizace města-použit generátor náhodných čísel: náhodná barva-sto polí

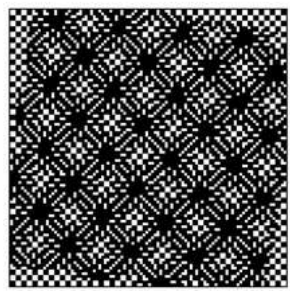
Stylizace města-použit generátor náhodných čísel: náhodná barva-deset tisíc polí



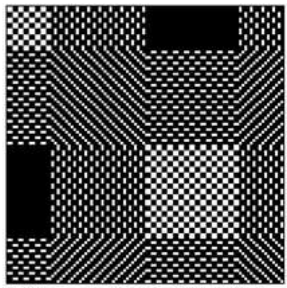
Stylizace města-základní šachovnicový rastr



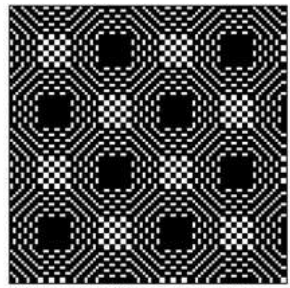
Stylizace města-základní šachovnicový rastr +šachovnicový rastr rotovaný o 1°



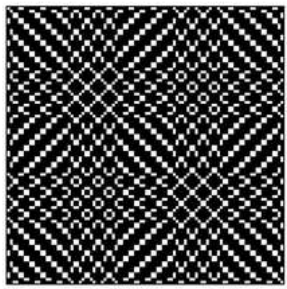
Stylizace města-základní šachovnicový rastr +šachovnicový rastr rotovaný o 10°



Stylizace města-základní šachovnicový rastr
+šachovnicový rastr zvětšený o 3%



Stylizace města-základní šachovnicový rastr
+šachovnicový rastr zvětšený o 10%



Stylizace města-základní šachovnicový rastr
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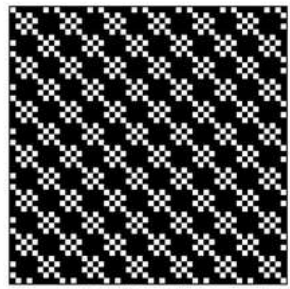

Stylizace města-základní šachovnicový rastr
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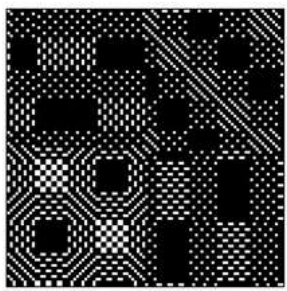
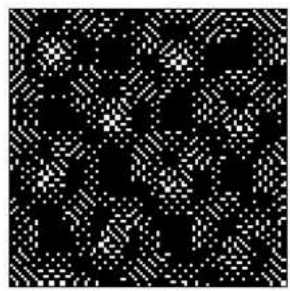
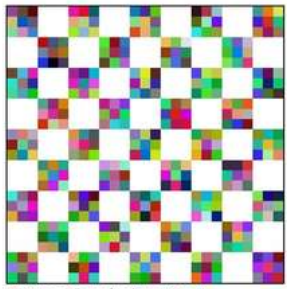


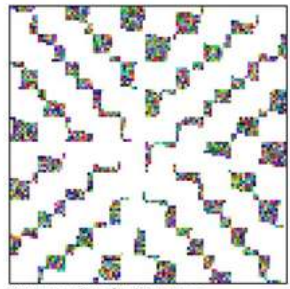
Stylizace města-základní šachovnicový rastr
+šachovnicový rastr zvětšený o 10%
+šachovnicový rastr rotovaný o 1°



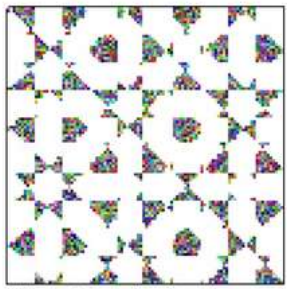
Stylizace města-základní šachovnicový rastr
+šachovnicový rastr zvětšený o 10%
+šachovnicový rastr rotovaný o 10°



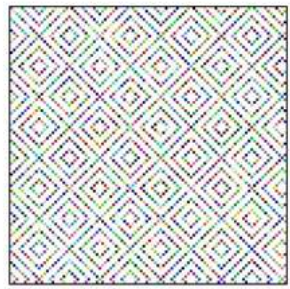
Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 1



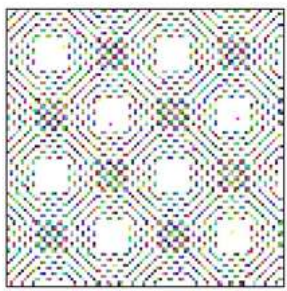
Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 2



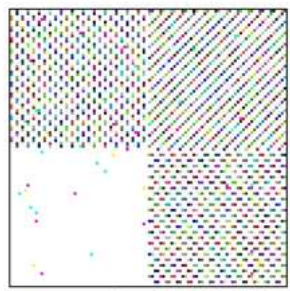
Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 3



Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 4



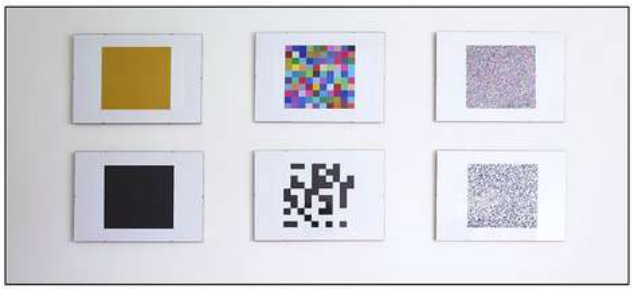
Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 5



Stylizace města-různé kombinace šachovnicových rastrů+náhodné barvy 6

Galerijní instalace stylizace města - výstava KONKRET 2017, Galerie bratří Špillarů, Domažlice
fotografie 1

Galerijní instalace stylizace města - výstava KONKRET 2017, Galerie bratří Špillarů, Domažlice
fotografie 2



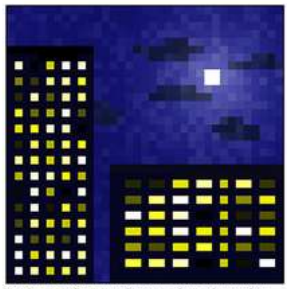
Instalace stylizace města v bytovém interiéru - Plzeň, 2019

Stylizace města-prototyp skládačky-seznam akcí v Papírně pro leden 2019-Fotka 1

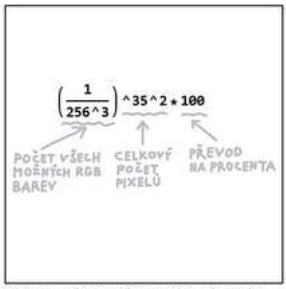
Stylizace města-prototyp skládačky-seznam akcí v Papírně pro leden 2019-Fotka 2

Stylizace města-prototyp skládačky-seznam akcí v Papírně pro leden 2019-Fotka 3

Stylizace města-prototyp skládačky-seznam akcí v Papírně pro leden 2019-Fotka 4



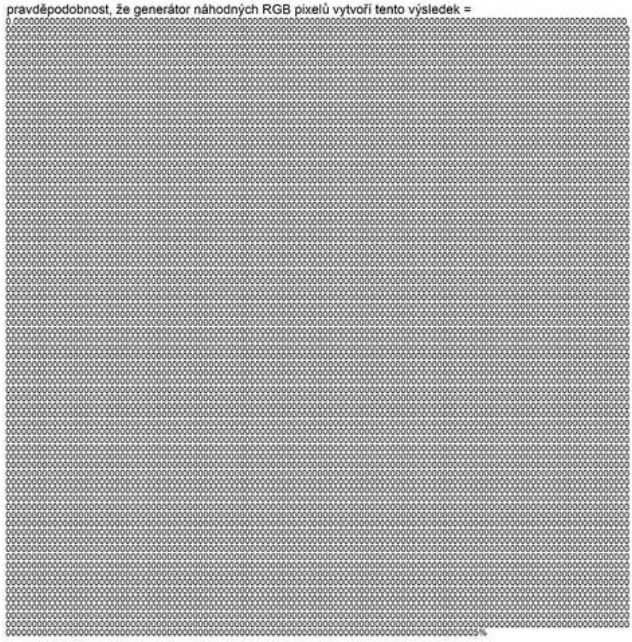
Stylizace města-použit generátor náhodných čísel-náhodná barva-35x35 polí-možný výsledek



Stylizace města-použit generátor náhodných čísel-náhodná barva-35x35 polí-možný výsledek-výpočet pravděpodobnosti

pravděpodobnost, že generátor náhodných RGB pixelů vytvoří tento výsledek =

0



0%

```
<!doctype html>
<html>
<head>
</head>
<body>
<style>
  body {
  margin:0px;
  padding:0px;
  }
  svg {
  position: absolute; left: 1px; top: 1px;
  }
  .emptyframe {
  width: 100%;
  height:1000;
  background-color:white;
  }
</style>
<div id="emptyframe"> </div>
<div id="svg54583"></div>
<script>
var randNUMBER = Math.floor((Math.random() * 10) +
1);
for(I=0;I<randNUMBER;I++){

{
const f = (() => {

    // create the svg element
    const svg1 = document.createElementNS("htt-
p://www.w3.org/2000/svg", "svg");

    // set width and height
    svg1.setAttribute("width", "100%");
    svg1.setAttribute("height", "100%");


  //random color-------------------
  var base = "0123456789ABCDEF";
  var randomhex;
  var randa = Math.floor((Math.random() * 15) + 0);
  var randb = Math.floor((Math.random() * 15) + 0);
  var randc = Math.floor((Math.random() * 15) + 0);
  var randd = Math.floor((Math.random() * 15) + 0);
  var rande = Math.floor((Math.random() * 15) + 0);
  var randf = Math.floor((Math.random() * 15) + 0);
  //choose random character
  randomhex = "#"+base[randa]+base[randb]+base[ran-
dc]+base[randd]+base[rande]+base[randf];
  //document.write(randomhex);

  //random r-------------------
  var randR = Math.floor((Math.random() * 100) +
0);
  //random stroke width-------------------
  var randWIDTH = Math.floor((Math.random() * 20) +
1);


    // create a path-------------------
    const path = document.createElementNS("htt-
p://www.w3.org/2000/svg", "circle");
    path.setAttribute("fill", "none");
  path.setAttribute("stroke", randomhex);
  path.setAttribute("stroke-width", randWIDTH);
  path.setAttribute("r", randR);
  path.setAttribute("cx", "250");
  path.setAttribute("cy", "120");

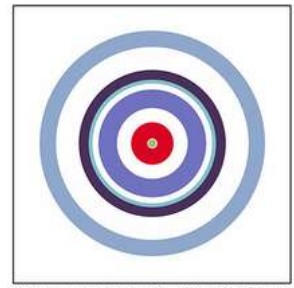
    // attach it to the container
    svg1.appendChild(path);

    // attach container to document
    document.getElementById("svg54583").append-
Child(svg1);

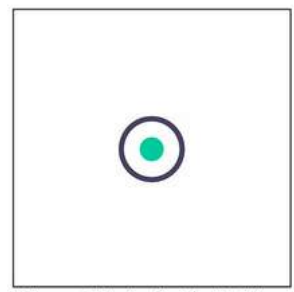
});

f()
;
}
}
</script>
</body>
</html>
```

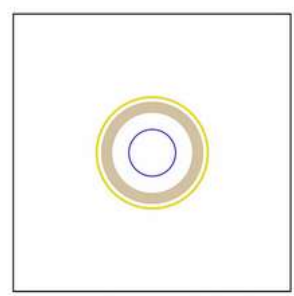
Stylizace města-kruhy náhodné velikosti, barvy a šířky tahu-kód programu



Stylizace města-kruhy náhodné velikosti, barvy a šířky tahu-ukázka 1



Stylizace města-kruhy náhodné velikosti, barvy a šířky tahu-ukázka 2



Stylizace města-kruhy náhodné velikosti, barvy a šířky tahu-ukázka 3

```
<!doctype html>
<html>
<html lang="cs">
<head>
</head>
<body>
<style>
  body {
  margin:0px;
  padding:0px;
  }
  svg {
  position: absolute; left: 0px; top: 0px;
  width:800px;
  height:800px;
  }
</style>
<div id="svg54583"></div>
<script>
var numberofpaths = Math.floor((Math.random() * 5)
+ 1);
for(I=0;I<numberofpaths;I++){
{
const f = (() => {

    // create the svg element
    const svg1 = document.createElementNS("htt-
p://www.w3.org/2000/svg", "svg");

    // set width and height
    svg1.setAttribute("width", "100%");
    svg1.setAttribute("height", "100%");


  //rand path-------------------
  var a = 800;
  var b = 0;
  var d ="";
  var LENGTH = Math.floor((Math.random() * 300) +
1);
  for(i=0;i<LENGTH;i++){
  var randA = Math.floor((Math.random() * a) + b);
  var randB = Math.floor((Math.random() * a) + b);
  d +=randA+","+randB+" ";
  }

  //random color-------------------
  var base = "0123456789ABCDEF";
  var randomhex;
  var randa = Math.floor((Math.random() * 15) + 0);
  var randb = Math.floor((Math.random() * 15) + 0);
  var randc = Math.floor((Math.random() * 15) + 0);
  var randd = Math.floor((Math.random() * 15) + 0);
  var rande = Math.floor((Math.random() * 15) + 0);
  var randf = Math.floor((Math.random() * 15) + 0);
  //choose random character
  randomhex = "#"+base[randa]+base[randb]+base[ran-
dc]+base[randd]+base[rande]+base[randf];
  //document.write(randomhex);

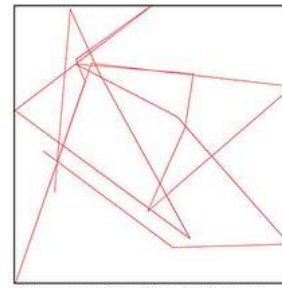
  //random stroke width-------------------
  var randWIDTH = Math.floor((Math.random() * 5) +
1);

    // create a path-------------------
    const path = document.createElementNS("htt-
p://www.w3.org/2000/svg", "polyline");
    path.setAttribute("fill", "none");
  path.setAttribute("stroke", randomhex);
  path.setAttribute("stroke-width", randWIDTH);
  path.setAttribute("points", d);

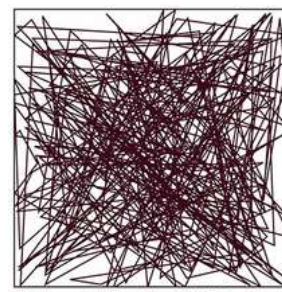
    // attach it to the container
    svg1.appendChild(path);

    // attach container to document
    document.getElementById("svg54583").append-
Child(svg1);
});
f()
;
}
}
</script>
</body>
</html>
```

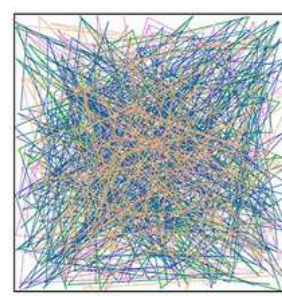
Stylizace města-linie náhodné délky, barvy, počtu a šířky tahu-kód programu



Stylizace města-linie náhodné délky, barvy, počtu a šířky tahu-ukázka 1



Stylizace města-linie náhodné délky, barvy, počtu a šířky tahu-ukázka 2

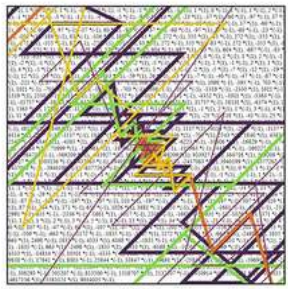


Stylizace města-linie náhodné délky, barvy, počtu a šířky tahu-ukázka 3

```
<!doctype html>
<html>
<html lang="cs">
<head>
</head>
<body>
<style>
  body {
  margin:0px;
  padding:0px;}
  svg {
  position: absolute; left: 0px; top: 0px;
  width:100%;
  height:80000px;}
</style>
<div id="svg54583"></div>
<script>
for(I=0;I<5;I++){
{
const f = (() => {
    // create the svg element
    const svg1 = document.createElementNS("htt-
p://www.w3.org/2000/svg", "svg");
    // set width and height
    svg1.setAttribute("width", "100%");
    svg1.setAttribute("height", "100%");
  //path
  var rand1="";
  var rand2="";
  var D="";
  var FIBa = 1;
  var FIBb = 1;
  for (i=1;i<50;i++) {
  rand1 = Math.floor((Math.random() * 2) + 1);
  rand2 = Math.floor((Math.random() * 2) + 1);
  if (rand1==1){
    rand1=1;
  } else {
    rand1=2-2;
  }
  if (rand2==1){
    rand2=1;
  } else {
    rand2=1-2;
  }
  document.write(FIBa+" "+rand1+"), "+FIBb+"
"("+rand2+"), ");
  var offset=400;
  FIBa+=offset;
  FIBb+=offset;
  D+=FIBa+","+FIBb+" "+FIBb+","+FIBa+" ";
  //D+=FIBa+","+offset+" "+offset+","+FIBa+" ";
  FIBa-=offset;
  FIBb-=offset;
  FIBa=(FIBa)*(rand1);
  FIBb=(FIBb)*(rand2);
  FIBa=(FIBa)+(FIBb);
  FIBa=(FIBa)*(rand1);
  FIBb=(FIBb)*(rand2);
  FIBb=(FIBb)+(FIBa);
  }
//random color---------------------
    var base = "0123456789ABCDEF";
    var randomhex;
    var randa = Math.floor((Math.random() * 15) + 0);
    var randb = Math.floor((Math.random() * 15) + 0);
    var randc = Math.floor((Math.random() * 15) + 0);
    var randd = Math.floor((Math.random() * 15) + 0);
    var rande = Math.floor((Math.random() * 15) + 0);
    var randf = Math.floor((Math.random() * 15) + 0);
    //choose random character
    randomhex = "#"+base[randa]+base[randb]+base[rand-
c]+base[randd]+base[rande]+base[randf];
    //random stroke width
    var STROKE = Math.floor((Math.random() * 10) + 1);
      // create a path-----------------------
      const path = document.createElementNS("htt-
p://www.w3.org/2000/svg", "polyline");
      path.setAttribute("fill", "none");
    path.setAttribute("stroke", randomhex);
    path.setAttribute("stroke-width", STROKE);
    path.setAttribute("points", D);
      // attach it to the container
      svg1.appendChild(path);
      // attach container to document
      document.getElementById("svg54583").append-
Child(svg1);
});
f()
;
}
}
</script>
</body>
</html>
```

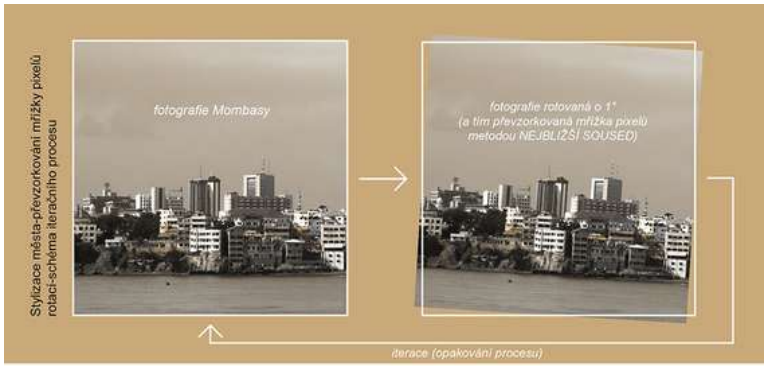
Stylizace města-každé číslo Fibonacciho řady vynásobenu buď 1 nebo -1 (náhodně zvoleno)-čísla dosazena do X,Y souřadnic-kód programu

Stylizace města-každé číslo Fibonacciho řady vynásobenu buď 1 nebo -1 (náhodně zvoleno)-čísla dosazena do X,Y souřadnic-ukázka 1



Stylizace města-každé číslo Fibonacciho řady vynásobenu buď 1 nebo -1 (náhodně zvoleno)-čísla dosazena do X,Y souřadnic-ukázka 2

Stylizace města-každé číslo Fibonacciho řady vynásobenu buď 1 nebo -1 (náhodně zvoleno)-čísla dosazena do X,Y souřadnic-ukázka 3



Stylizace města-převzorkování mřížky pixelů rotací metodou nejbližší soused-10 iterací

Stylizace města-převzorkování mřížky pixelů rotací metodou nejbližší soused-90 iterací

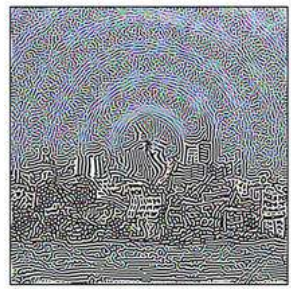
Stylizace města-převzorkování mřížky pixelů rotací metodou nejbližší soused-180 iterací

Stylizace města-převzorkování mřížky pixelů rotací metodou nejbližší soused-360 iterací

Stylizace města-bikubické převzorkování
mřížky pixelů rotací-10 iterací

Stylizace města-bikubické převzorkování
mřížky pixelů rotací-90 iterací

Stylizace města-bikubické převzorkování
mřížky pixelů rotací-180 iterací

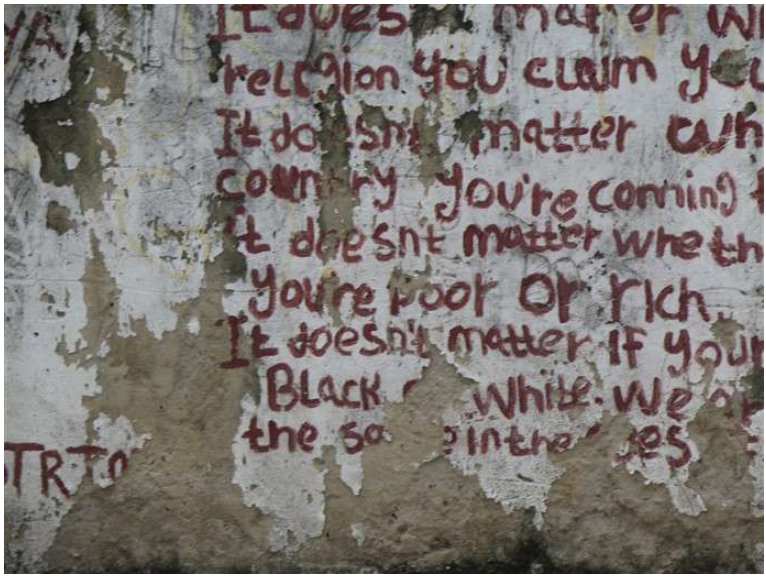


Stylizace města-bikubické převzorkování
mřížky pixelů rotací-360 iterací

Stylizace města-abeceda z fotografií-klauzurní zkoušky 2019-předmět digitální fotografie-
Střední odborná škola obchodu, užitého umění a designu, Plzeň

It doesn't matter which region you're from...

October 2015



28. prosince 2014 jsem v Mombase
vyfotil starou popsanou zeď.
Pak jsem se snažil rozluštit text na ní.
Jednu jeho čitelnou část jsem zadal do
internetového vyhledávače
a tak objevil následující fotografii.

Nezáleží, jakého jsi vyznání.
Nezáleží, z jaké země pocházíš.
Nezáleží, jestli jsi chudý nebo bohatý.
Nezáleží, jestli jsi černoch nebo běloch.
Všichni jsme si rovni v očích Boha.

Weeds

May 2008

A project from preschool.

The assignment was to cut out blooming flowers from colored paper and assemble them into a picture.

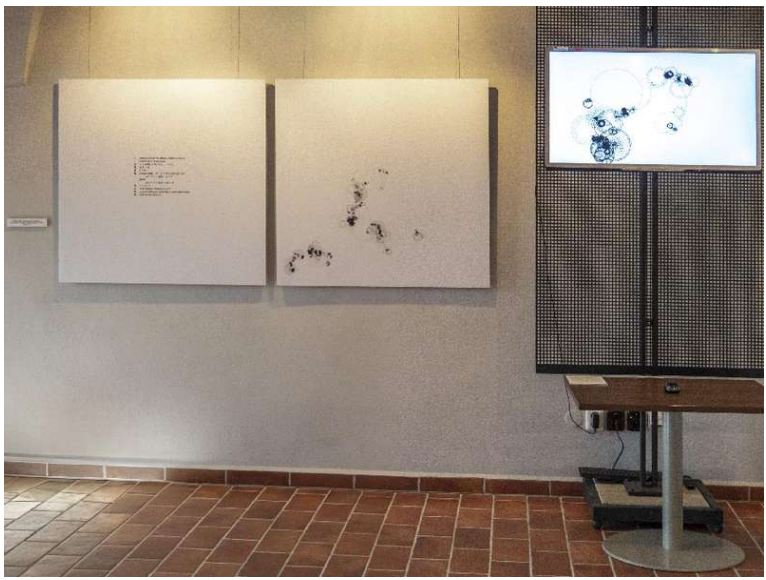
Instead of flowers, I created weeds.

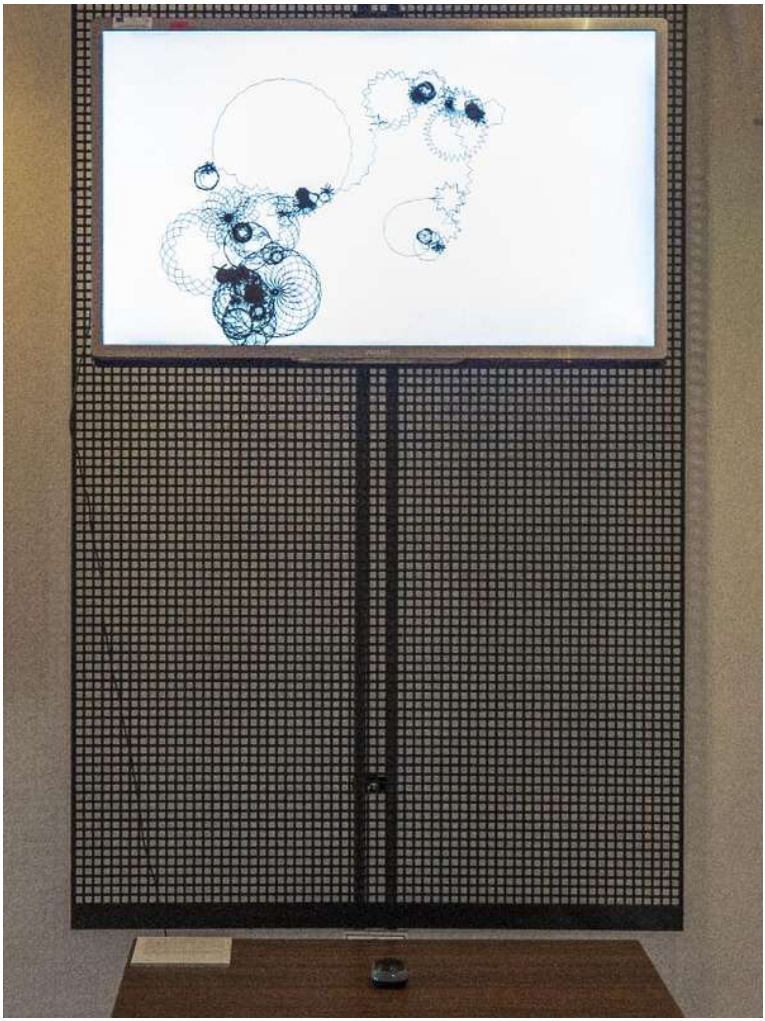
Recamán’s Structure

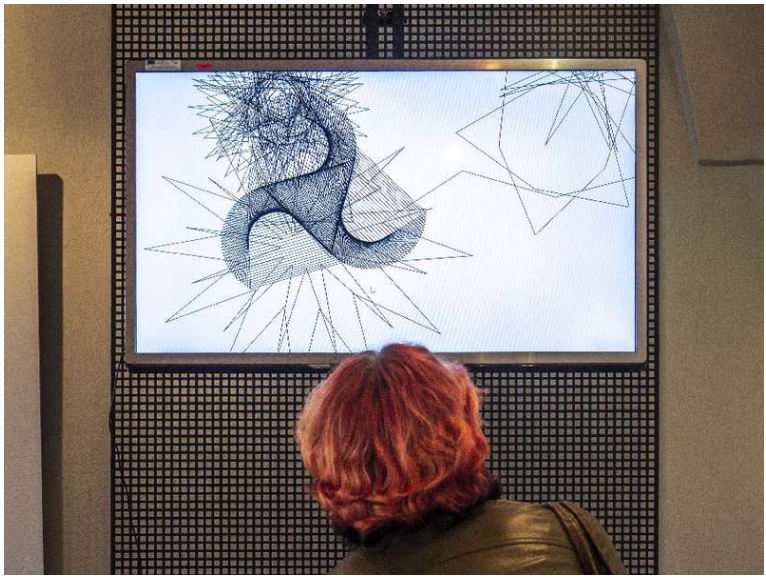
September 14, 2023 – December 31, 2023, Jindřichův Hradec

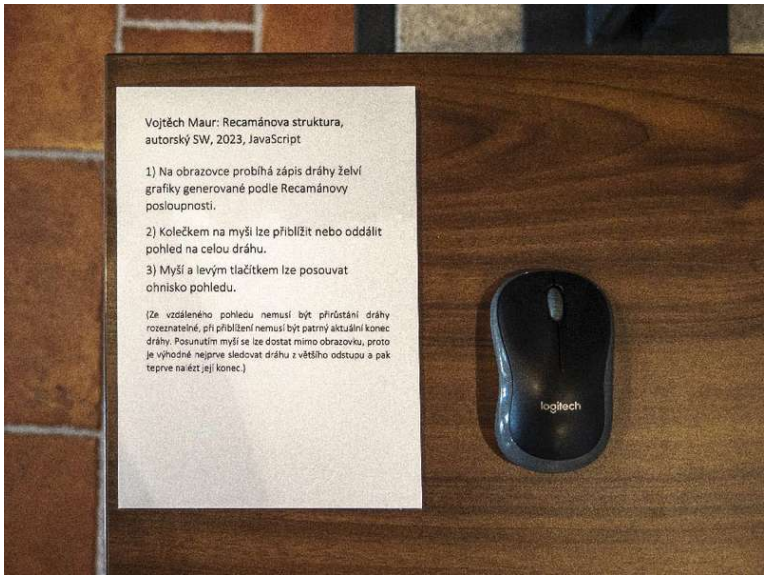
Museum of Photography and Modern Visual Media: Images Beyond Numbers

> Interactive or embedded content: recamanova-struktura.html








Vojtěch Maur: Recamánova struktura,
autorský SW, 2023, JavaScript
1) Na obrazovce probíhá zápis dráhy želví grafiky generované podle Recamánovy posloupnosti.
2) Kolečkem na myši lze přiblížit nebo oddálit pohled na celou dráhu.
3) Myší a levým tlačítkem lze posouvat ohnisko pohledu.
(Ze vzdáleného pohledu nemusí být přírůstání dráhy rozeznatelné, při přiblížení nemusí být patrný aktuální konec dráhy. Posunutím myši se lze dostat mimo obrazovku, proto je výhodné nejprve sledovat dráhu z většího odstupu a pak teprve naïezt její konec.)
logitech

Exhibition information on the Museum of Photography and Modern Visual Media website:
https://www.mfmom.cz/vystavy/obrazy-nad-cisly-i306.html

Article from the JcTEĎ.cz website:

https://www.jcted.cz/76523-muzeum-fotografie-v-jindrichove-hradci-otevrelo-vystavu-pocitacovych-grafik/

Explanation of Recamán's structure (2020 project):
https://vojtamaur.cz/recamanova-posloupnost-zelvi-grafice/

Building Lots

October 19, 2022 – January 14, 2023, Brno

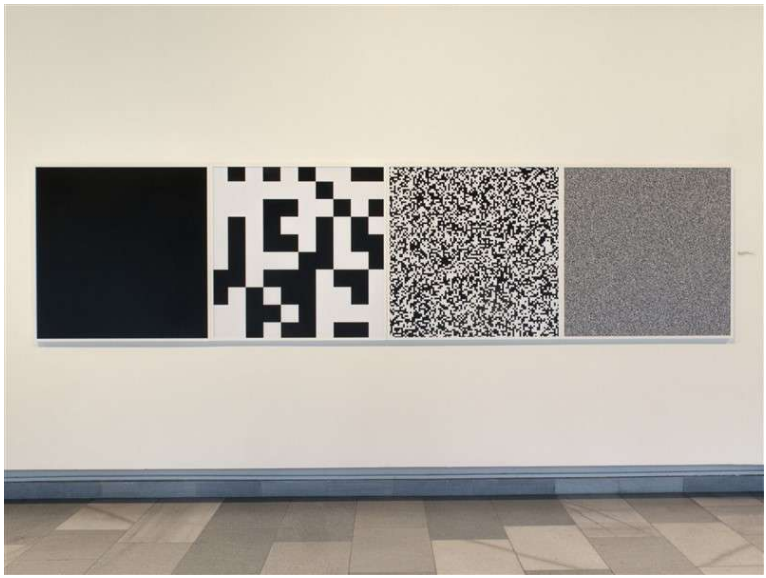
Fait Gallery: Milan Maur / Uncertain Sequences of Action

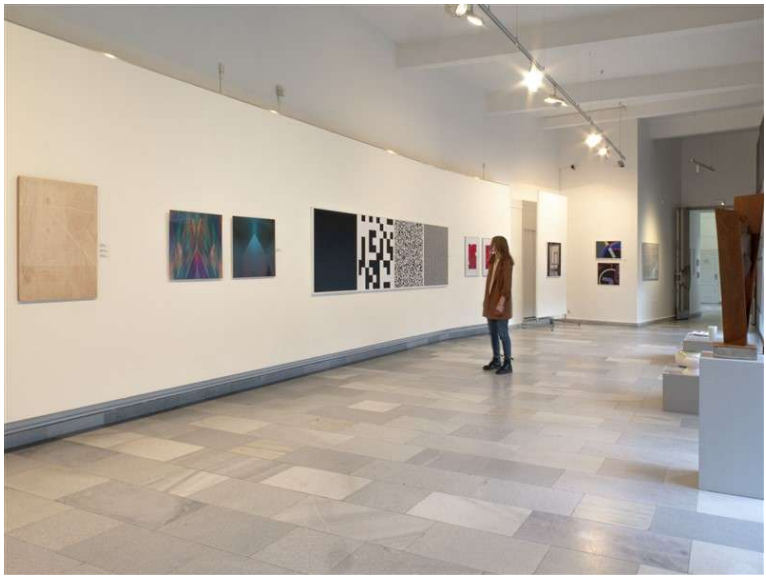
Exhibition information on the Fait Gallery website:
https://www.faitgallery.com/tiskovky/items/2014.html

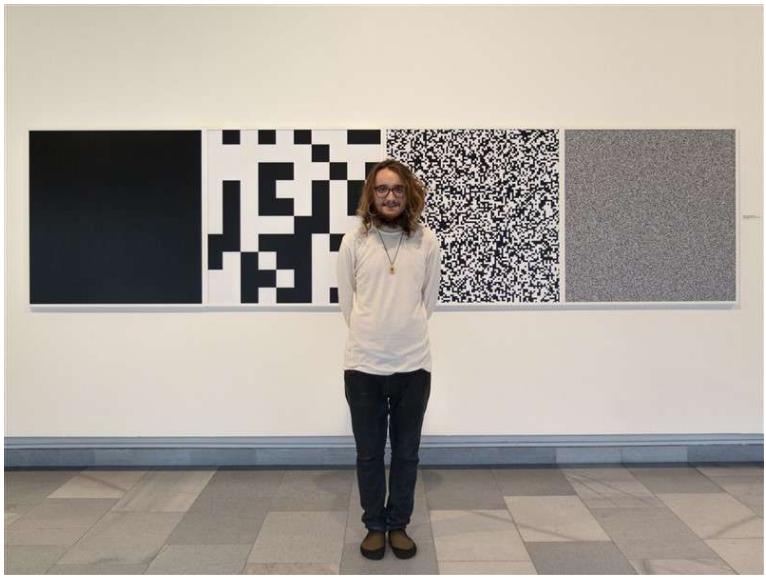
Random Number Generator

February 17, 2022 – March 27, 2022, Karlovy Vary

Karlovy Vary Art Gallery: KARLOVY VARY SALON 22/2







Exhibition information on the Karlovy Vary Art Gallery website:
http://www.galeriekvary.cz/vystavy/karlovarsky-salon-22-2

Sugar Cubes

March 21, 2018 – April 30, 2018, Pilsen

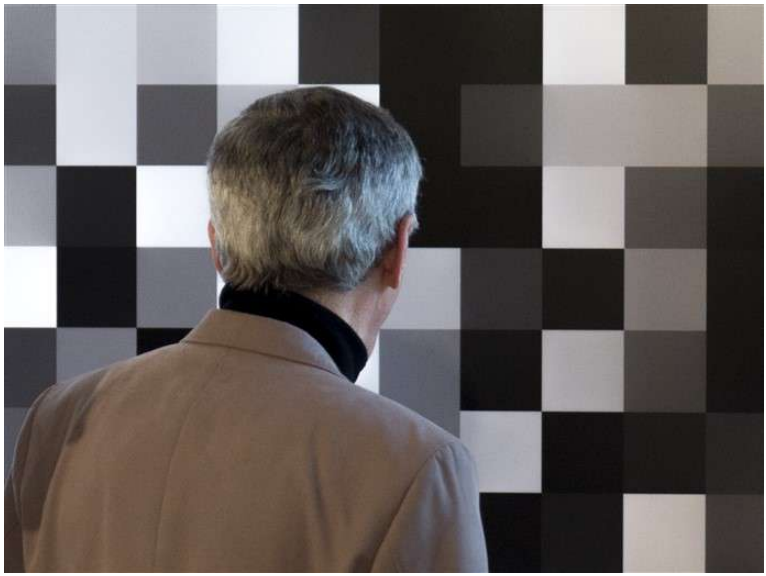
DEPO2015: ART3

Exhibition information on the DEPO2015 website (archive):
https://web.archive.org/web/20210925193536/https://www.depo2015.cz/program-depo-ag14/art-a2209

Random Number Generator

May 3, 2017 – June 18, 2017, Domažlice

The Špillar Brothers Gallery: KONKRET 2017



> Interactive or embedded content: vystavy-generator-nahodnych-cisel-dokument.pdf

How I Came to Chance, or From the City to Randomness: http://vojtamaur.cz/od-mesta-az-po-nahodu/

It Doesn’t Matter Where You’re From...

July 11, 2016 – August 14, 2016, Pilsen

DJKT (New Stage): Pilsen Salon 2016

On December 28, 2014, I took a photo of an old, graffiti-covered wall in Mombasa. Then I tried to decipher the text on it. I entered one legible part of it into an internet search engine and discovered the following photograph.

It doesn't matter which religion you claim you're. It doesn't matter which country you're coming from. It doesn't matter whether you 're poor or rich. It doesn't matter if you're black or white. We are all the same in the eyes of God.

Nezáleží, jakého jsi vyznání. Nezáleží, z jaké země pocházíš. Nezáleží, jestli jsi chudý nebo bohatý. Nezáleží, jestli jsi černoch nebo běloch. Všichni jsme si rovni v očích Boha.

Report by Plzeň TV:
https://www.youtube.com/watch?v=jxg-6iVPPmk

Water Level

February 4, 2016 – April 3, 2016, Pilsen

Pilsen City Gallery: BEFORE, NOW, AFTER

> Interactive or embedded content: GALBEnzekBw

How different is our life online compared to real life? Why go out when we can find everything on Google? Information from the internet is distorted and has little to do with reality.
It is a reflection of what we want to see.
The sun reflects on the water's surface, is projected onto a wall, and reflects in a mirror… Has it truly reached us unchanged?

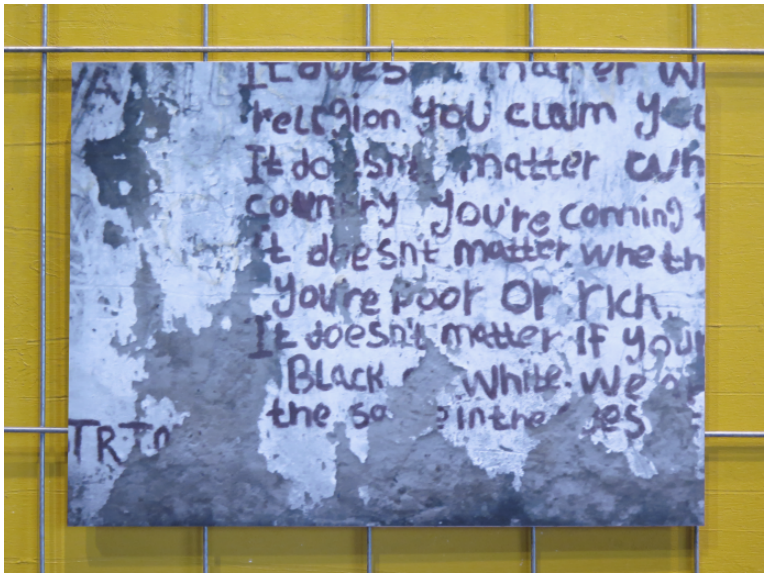
Exhibition highlights:
https://www.youtube.com/watch?v=SmsbQt0g9nc

More about the exhibition on the Pilsen City Gallery website:
http://galerie-plzen.cz/vystavy/vystavy-2016/predtim-ted-potom

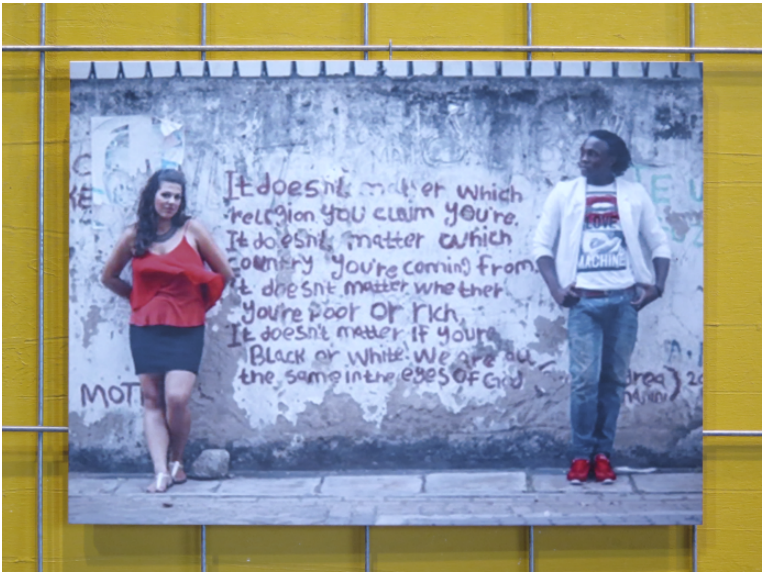
It doesn't matter where you're from...

October 10, 2015 – October 11, 2015, Pilsen

DEPO2015: ART SAFARI 30



28. prosince 2014 jsem v Mombase
vyfotil starou popsanou zeď.
Pak jsem se snažil rozluštit text na ní.
Jednu jeho čitelnou část jsem zadal do
internetového vyhledávače
a tak objevil následující fotografii.


It doesn't matter which
religion you claim you're.
It doesn't matter which
country you're coming from.
It doesn't matter whether
you're poor or rich.
It doesn't matter if you're
Black or White. We are all
the same in the eyes of God

Nezáleží, z jakého kraje jsi přišel.
Nezáleží, z jaké země pocházíš.
Nezáleží, jestli si chudý nebo bohatý.
Nezáleží, jestli si černoch nebo běloch.
Všichni sme si rovní v očích Boha.

Poland - Masuria 2026

Video

> Interactive or embedded content: 6wDN62Xq3pA

Italy - Venice 2026

Video

> Interactive or embedded content: FHJMNm3mjw0

Thailand 2024

3D scans

> Interactive or embedded content: 8fbb94a4-1c1e-4a5a-8654-127d1d7aa2f6

> Interactive or embedded content: 22c2848e-37ed-49c1-99b0-cbc77483d2aa

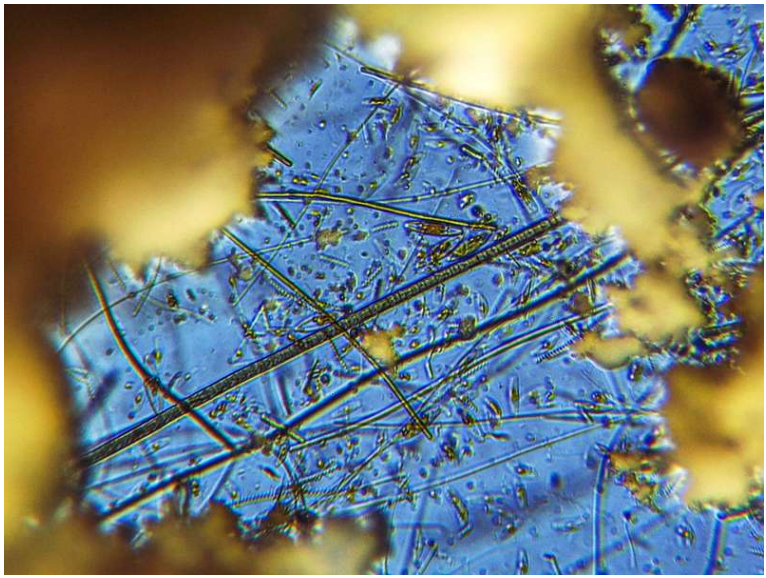
Greece 2020

Photos

Biofilm, Greece - Methana

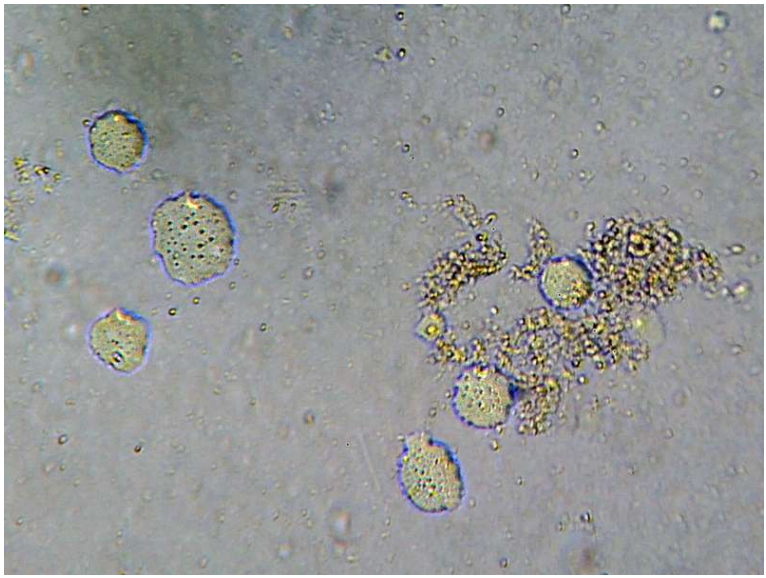
Bacteria—cyanobacteria, spirochetes, diatoms, Greece—Methana

Bacteria—cyanobacteria, spirochetes, diatoms, Greece—Methana



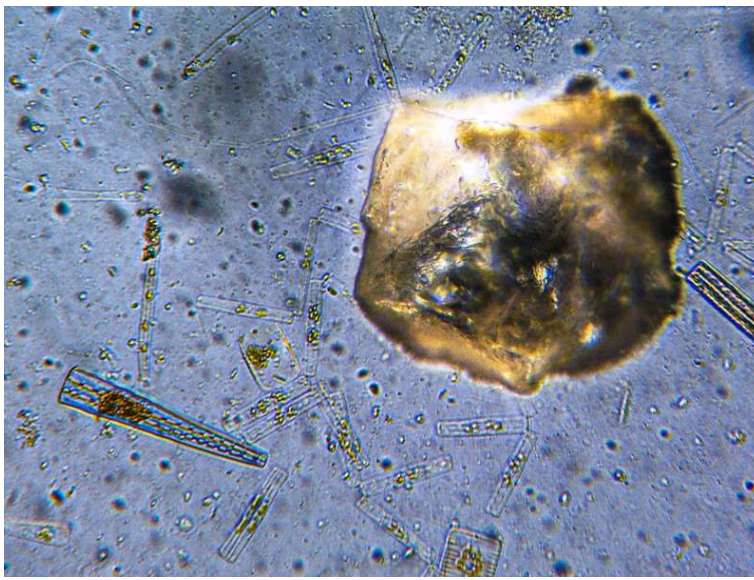
Bacteria—spirochetes, diatoms, Greece—Methana

Unidentified life, Greece - Koroni

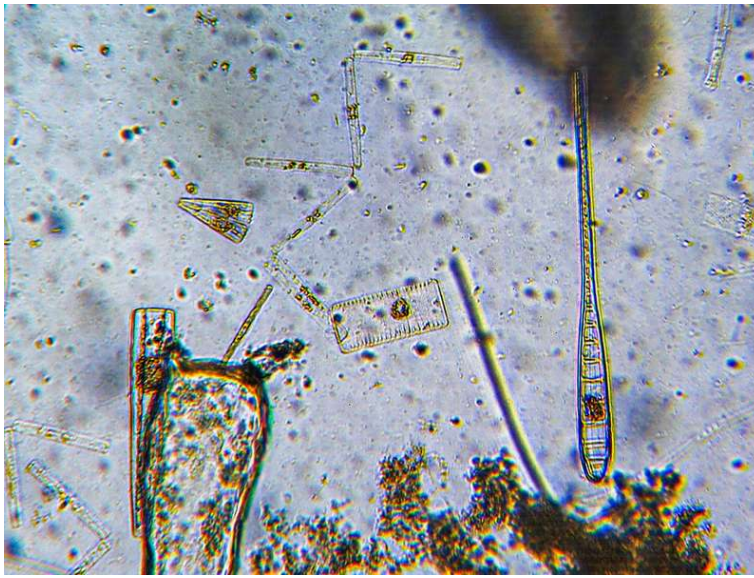


Diatoms, Greece - Koroni

Diatoms, Greece - Koroni

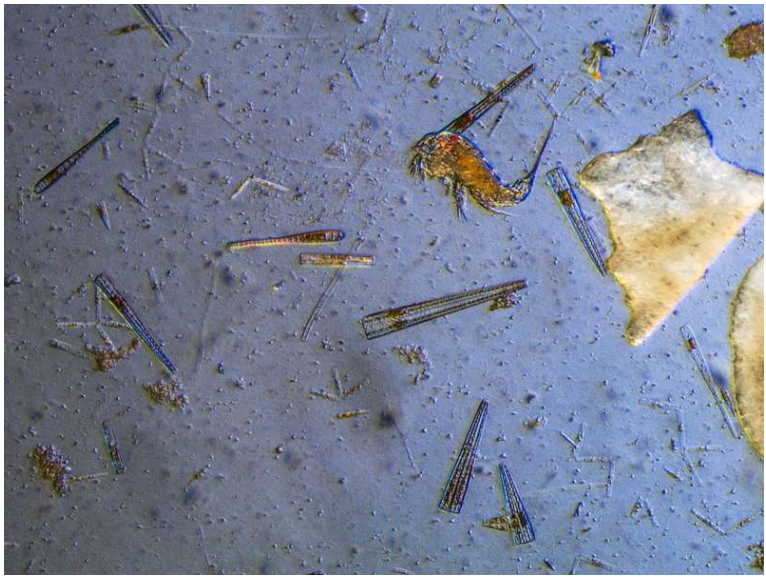


Diatoms, Greece – Koroni



Diatoms, Greece – Koroni

Diatoms and a crustacean, Greece - Koroni



Italy - Venice 2019

Video

> Interactive or embedded content: EW4HoE_ZCuw

Tanzania 2019

Photos, Texts

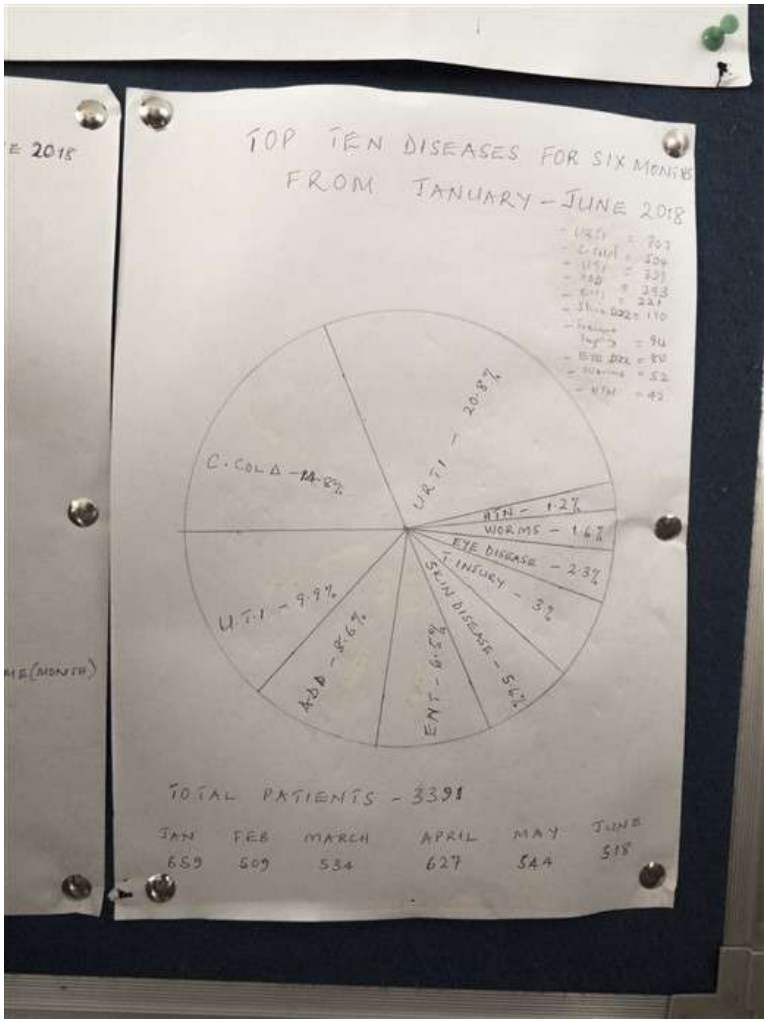
This presentation is a summary of various subjective observations and insights I gathered during my short stay in Tanzania. I express these observations and feelings through both photographs and text.

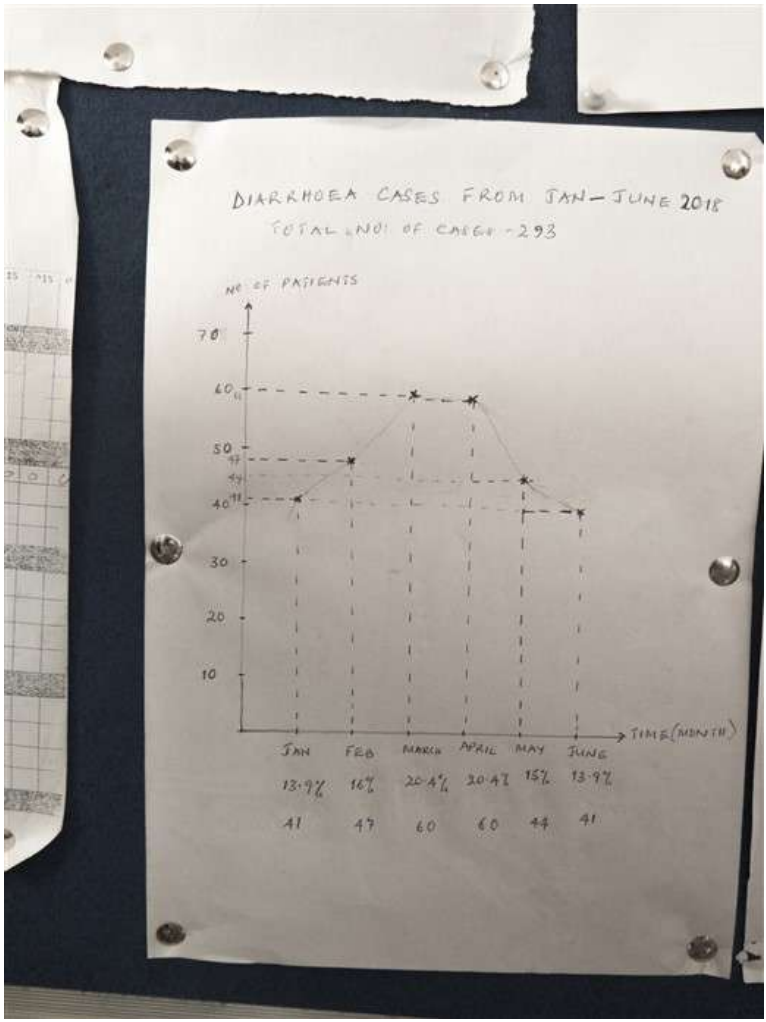
Through my work, I strive to help the local population, raise awareness of their issues, and thereby eradicate certain racial prejudices. I also believe that Europe should take a cue from this country in many respects.

There are two main religious groups in Tanzania—Islam and Christianity. Although the coexistence of these two groups may be hard for the average 21st-century European to imagine, local Muslims and Christians live here in peace and respect one another.

Personally, I don’t like people in uniforms (police, soldiers, security guards...). At least not in the Czech Republic. I believe that the authority entrusted to them breeds arrogance. However, my aversion to uniforms was not entirely justified in

Tanzania.People in uniforms there seemed kind to me and were always accommodating.


TOP TEN DISEASES FOR SIX MONTHS
FROM JANUARY - JUNE 2018
C. COLD - 14.8%
URTI - 20.8%
MIN - 1.2%
WORMS - 1.6%
EYE DISEASE - 2.3%
T. INJURY - 3%
SKIN DISEASE - 5%
ENT - 6.3%
ADD - 8.6%
U.T.I - 9.9%
TOTAL PATIENTS - 3391
JAN 659
FEB 609
MARCH 534
APRIL 627
MAY 544
JUNE 518

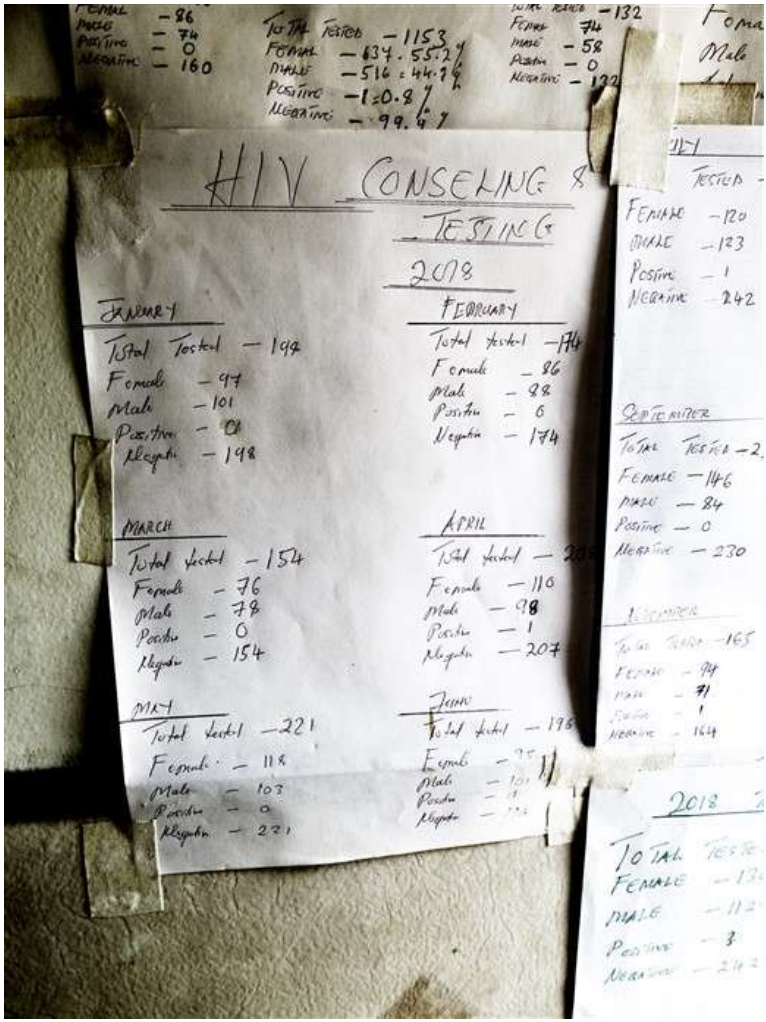

DIARRHOEA CASES FROM JAN – JUNE 2018
TOTAL NO: OF CASES - 293
NO OF PATIENTS
70
60
50
40
30
20
10
TIME (MONTH)
JAN
FEB
MARCH
APRIL
MAY
JUNE
13.9%
16%
20.4%
20.4%
15%
13.9%
41
47
60
60
44
41

FEMALE - 86
MALE - 74
POSITIVE - 0
NEGATIVE - 160

TOTAL TESTED - 1153
FEMALE - 637 . 55.2 %
MALE - 516 : 44.7 %
POSITIVE - 1 : 0.8 %
NEGATIVE - 99.4 %

TOTAL TESTED - 132
FEMALE 74
MALE - 58
POSITIVE - 0
NEGATIVE - 132

Fema
Male



HIV CONSELING & TESTING

2018

JANUARY
Total Tested - 198
Female - 97
Male - 101
Positive - 0
Negative - 198

FEBRUARY
Total tested - 174
Female - 86
Male - 88
Positive - 0
Negative - 174

MARCH
Total tested - 154
Female - 76
Male - 78
Positive - 0
Negative - 154

APRIL
Total tested - 20[illegible]
Female - 110
Male - 98
Positive - 1
Negative - 207

MAY
Total tested - 221
Female - 118
Male - 103
Positive - 0
Negative - 221

JUNE
Total tested - 196
Female - 95
Male - 101
Positive - 1
Negative - [illegible]

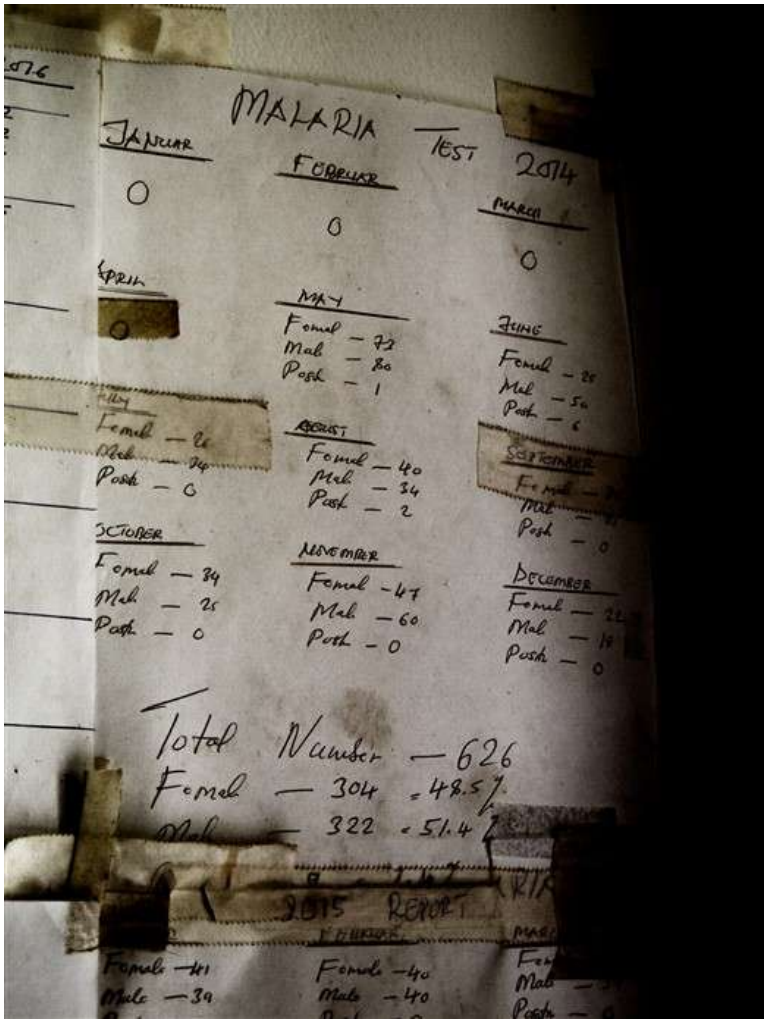
JULY
TESTED -
FEMALE - 120
MALE - 123
POSITIVE - 1
NEGATIVE - 242

SEPTEMBER
TOTAL TESTED - 2[illegible]
FEMALE - 146
MALE - 84
POSITIVE - 0
NEGATIVE - 230

NOVEMBER
TOTAL TESTED - 165
FEMALE - 94
MALE - 71
POSITIVE - 1
NEGATIVE - 164

2018

TOTAL TESTE[illegible]
FEMALE - 13[illegible]
MALE - 112
POSITIVE - 3
NEGATIVE - 242



MALARIA TEST 2014

JANUARY
0

FEBRUARY
0

MARCH
0

APRIL
0

MAY
Female – 73
Male – 80
Pesh – 1

JUNE
Female – 25
Male – 50
Pesh – 6

JULY
Female – 16
Male – 24
Pesh – 0

AUGUST
Female – 40
Male – 34
Pesh – 2

SEPTEMBER
Pesh – 0

OCTOBER
Female – 34
Male – 25
Pesh – 0

NOVEMBER
Female – 47
Male – 60
Pesh – 0

DECEMBER
Male – 14
Pesh – 0

Total Number – 626
Female – 304 = 48.5%
Male – 322 = 51.4%

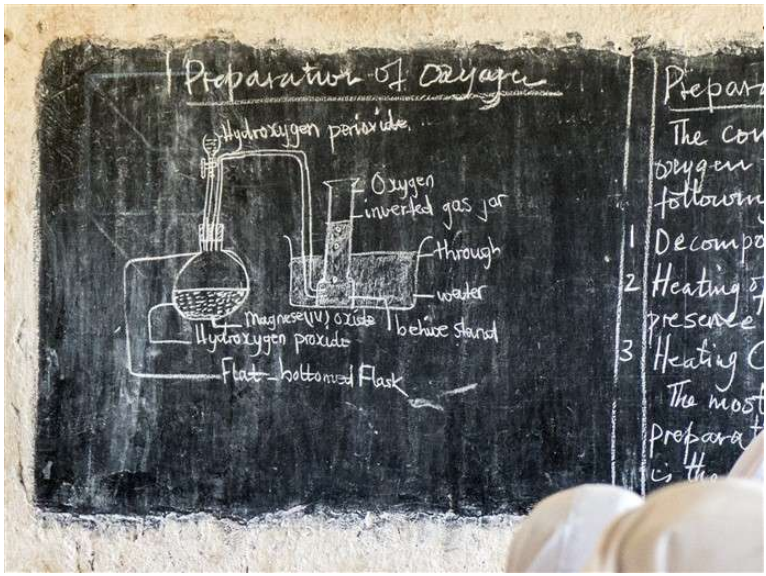
2015 REPORT

Female – 41
Male – 39

Female – 40
Male – 40

The locals strike me as very welcoming and friendly, even outside of tourist areas. Whenever I visited a local village, people greeted me with “Jambo!” (which translates to “Hello!”). Many of them even struck up a conversation with me.

Preparation of Oxygen
The common methods of Preparation of
oxygen in the Laboratory include the
following:-
1 Decomposition of Hydrogen Peroxide.
2 Heating of Potassium Chlorate in the
presence of a Catalyst.
3 Heating Compound rich in oxygen.
Peroxide Using Manganese (IV) Oxide as
a catalyst.
Decomposition. Decomposition is the breaking down
Compound into elements or Smaller
substance that speeds up Chemical
Chemically unchanged at the end
Manganese (IV) Oxide

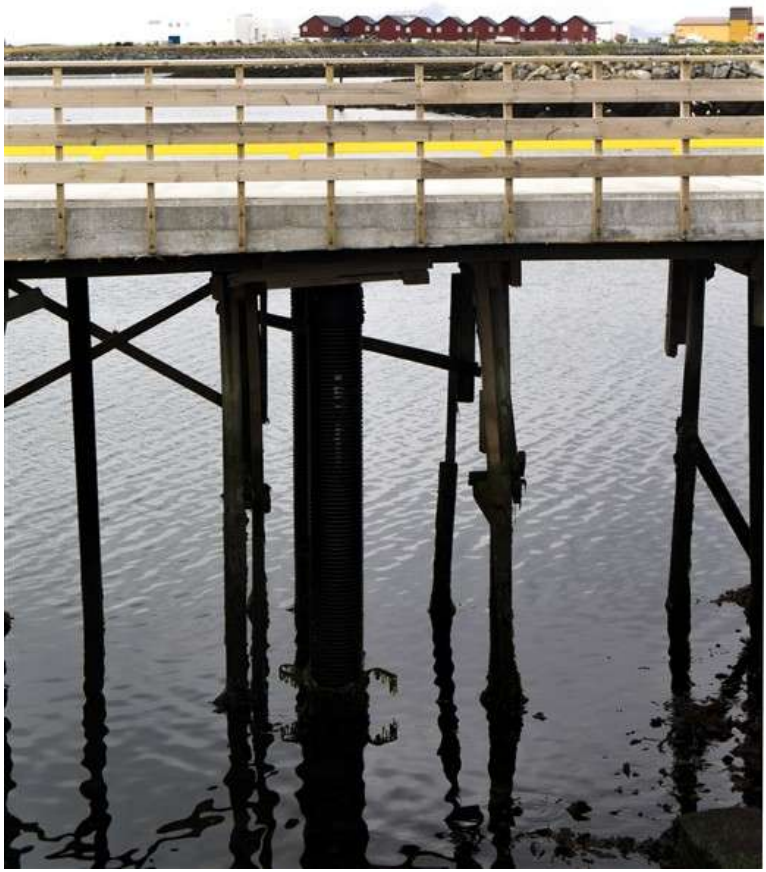

Preparation of Oxygen
Hydroxygen peroxide
Oxygen
inverted gas jar
through
water
Magnese(IV) oxide
Hydroxygen proxide
behive stand
Flat-bottomed Flask

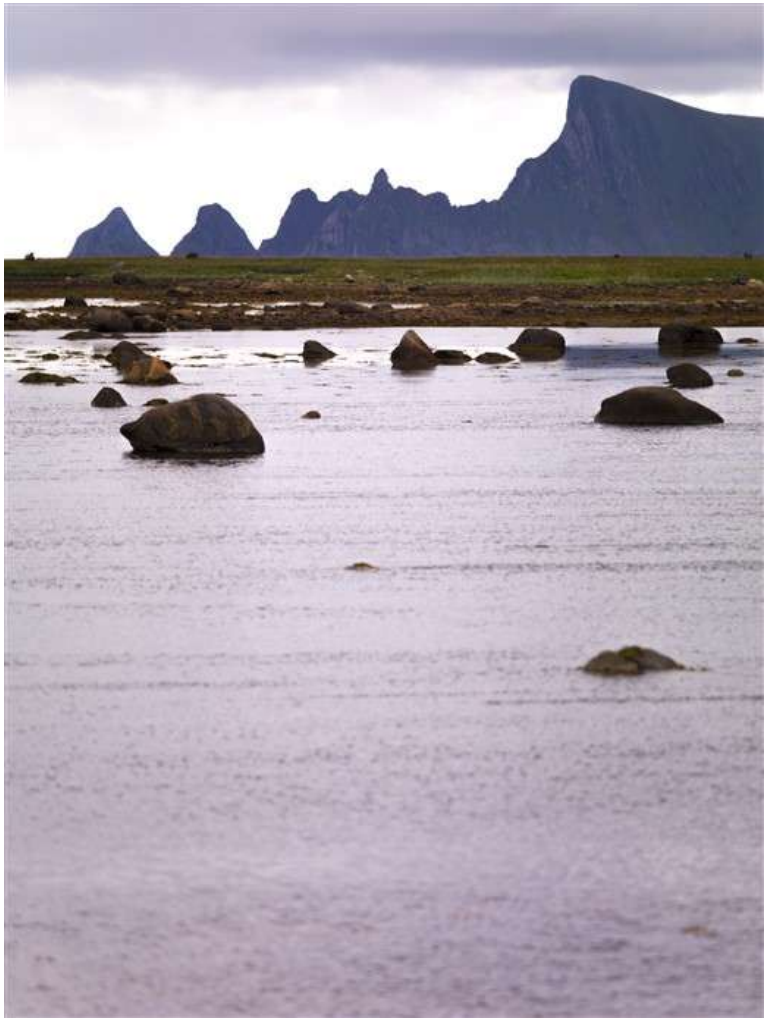
“These people from those warm regions seem to smile more than we do” (a snippet of a conversation among several passengers that I overheard on the plane on my return to the Czech Republic)

Thanks to globalization, tourism is also emerging in Zanzibar, bringing many advantages but also disadvantages. The main advantages are economic growth and rising educational levels. Another advantage is increased global awareness of this country, but unfortunately, this benefit is often negated by the massive walls of hotel complexes that many tourists never step beyond. I consider the destruction of local culture to be a disadvantage. An example of this issue is the migration of many Maasai from mainland Tanzania (primarily from the area around Kilimanjaro) to areas with a high concentration of tourists (the beaches of Zanzibar). These Maasai sell trinkets there and are merely a tourist attraction. The Maasai believe that if someone takes their picture, they are stealing their soul. In tourist areas, however, they'll happily let you take their picture for a few cents.

Norway - Lofoten 2018

Photos

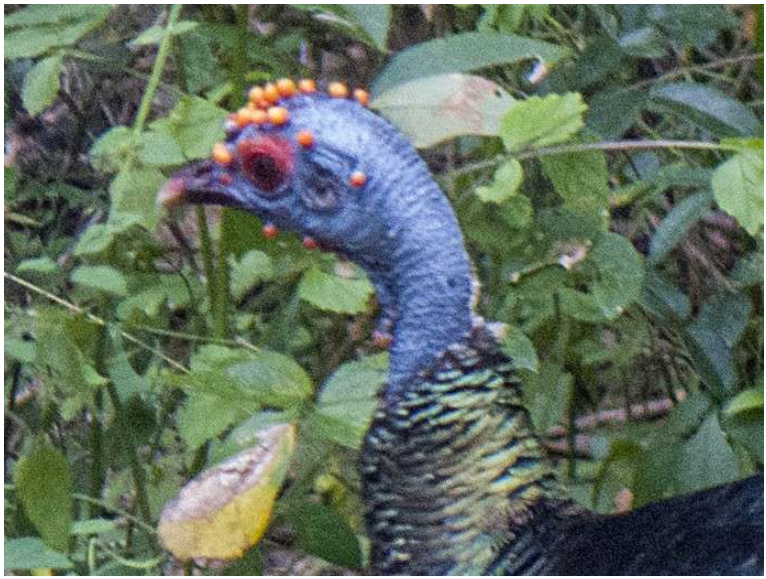


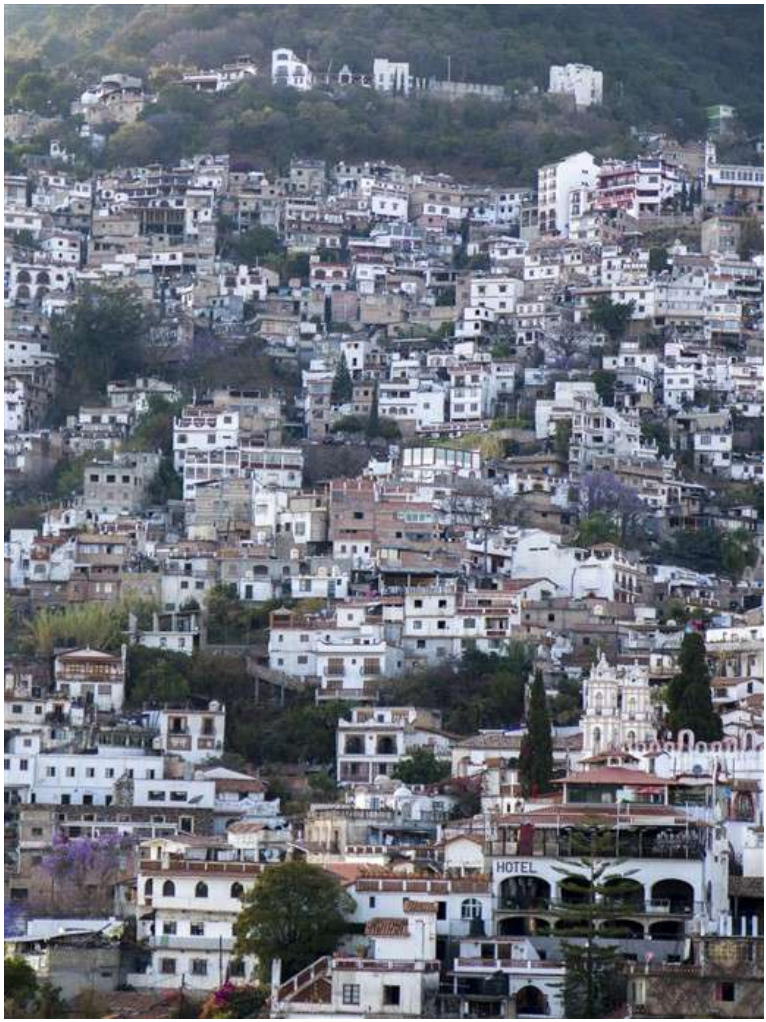


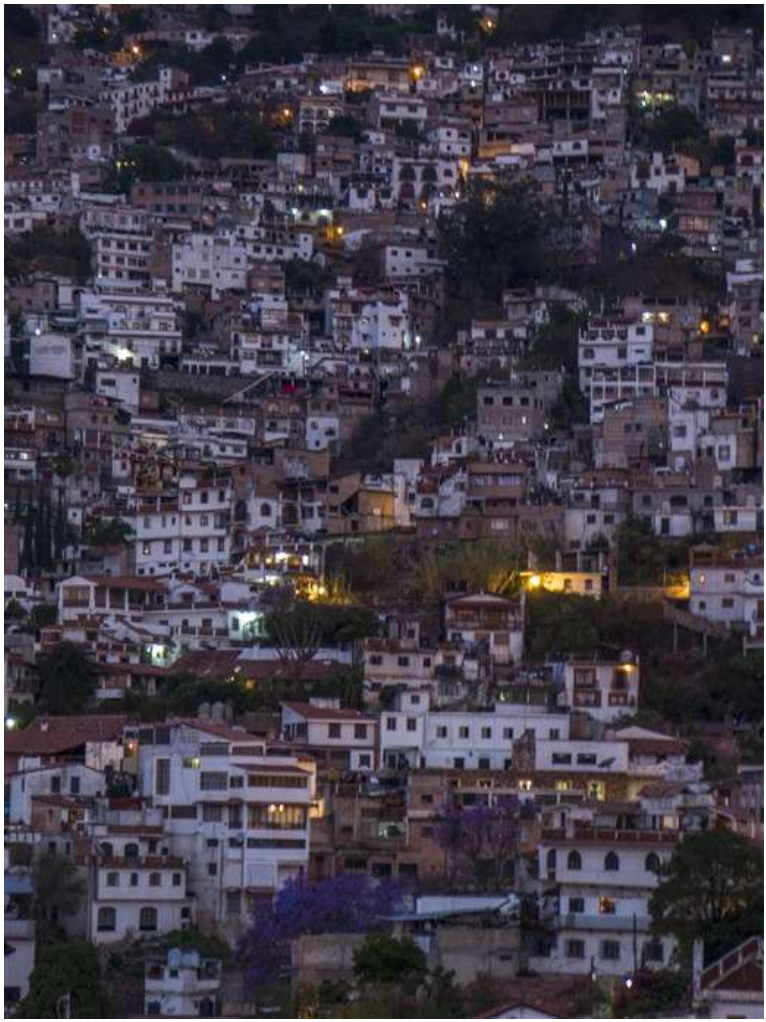
Mexico 2018

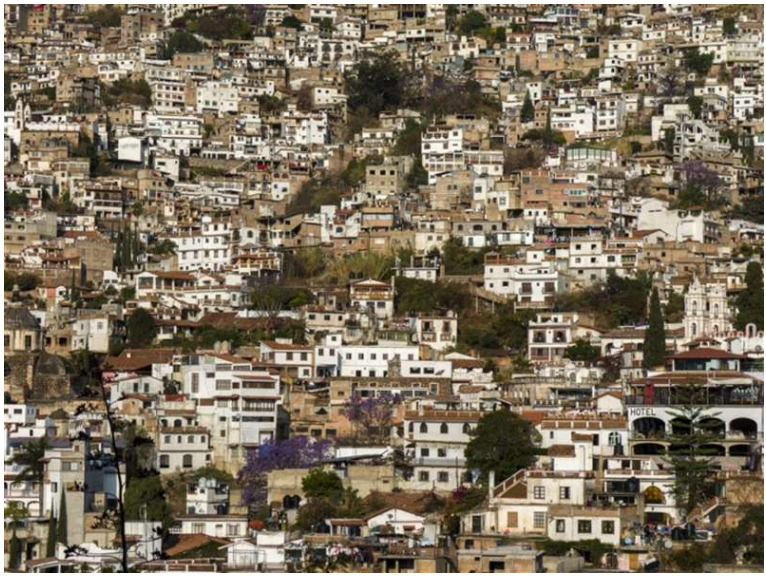
Video, photos

> Interactive or embedded content: P8HuF8GOC9E




HOTEL




HOTEL

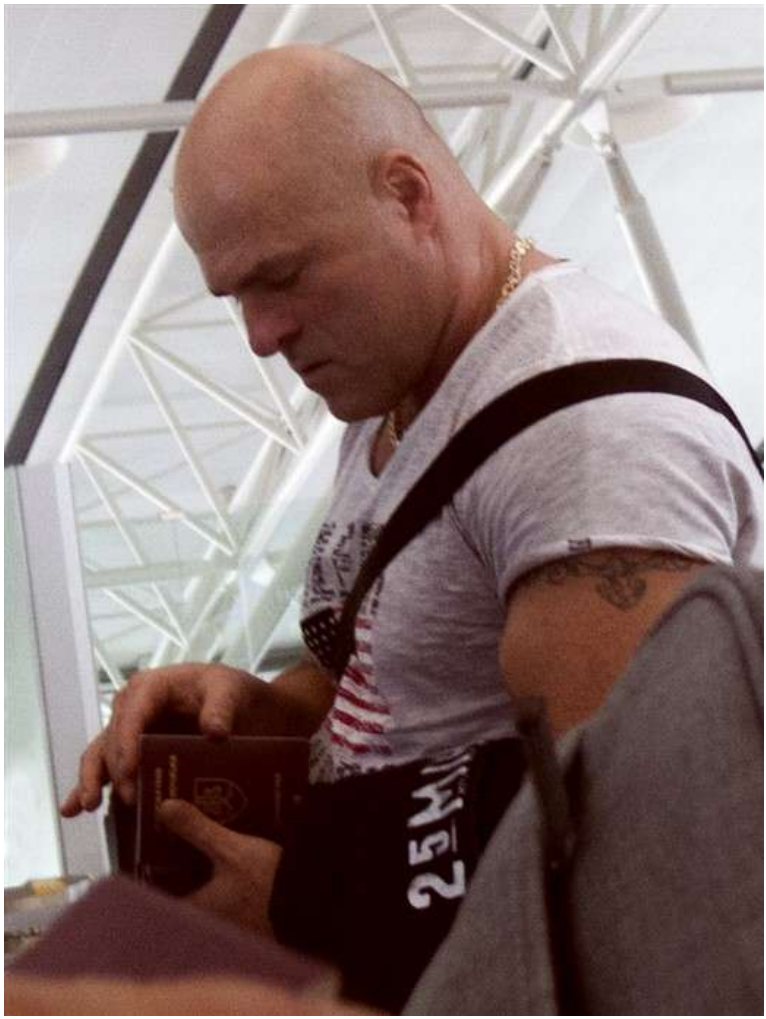
EL TULE

Oman 2018

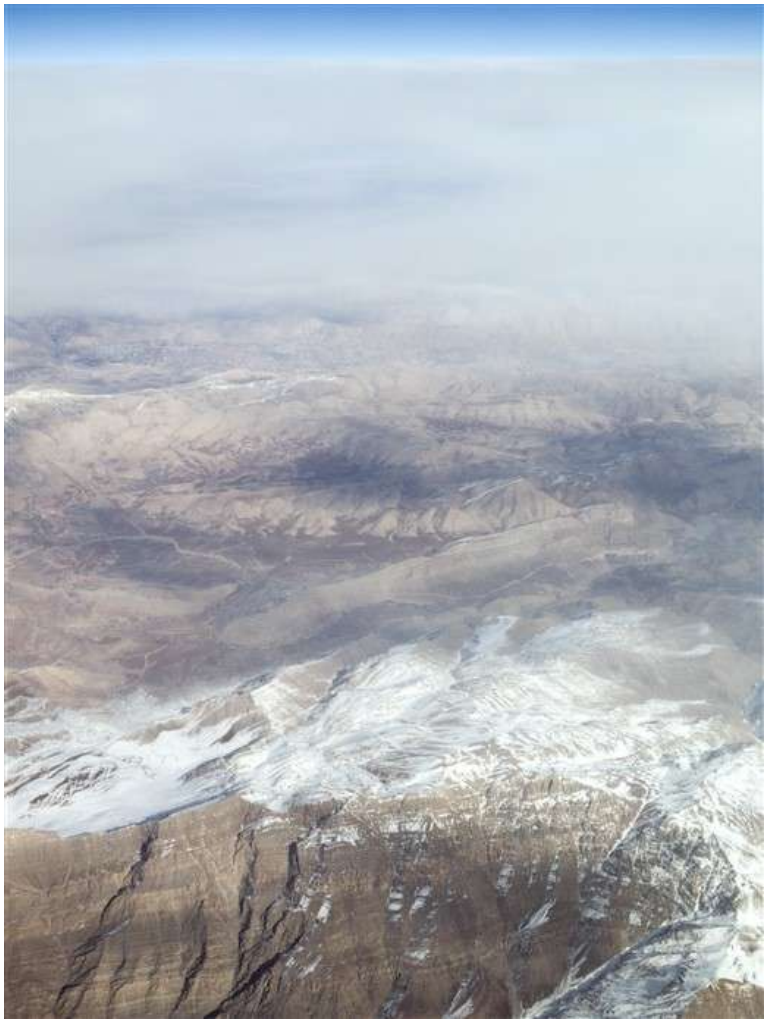
Video, photos

> Interactive or embedded content: wfHLdFqXR9w

TOYOTA



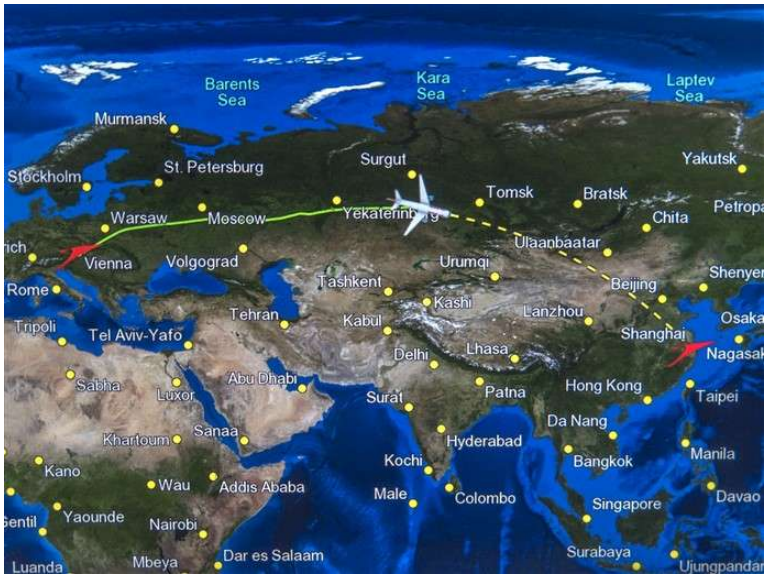
عمان
Oman



China 2017

Video, photos

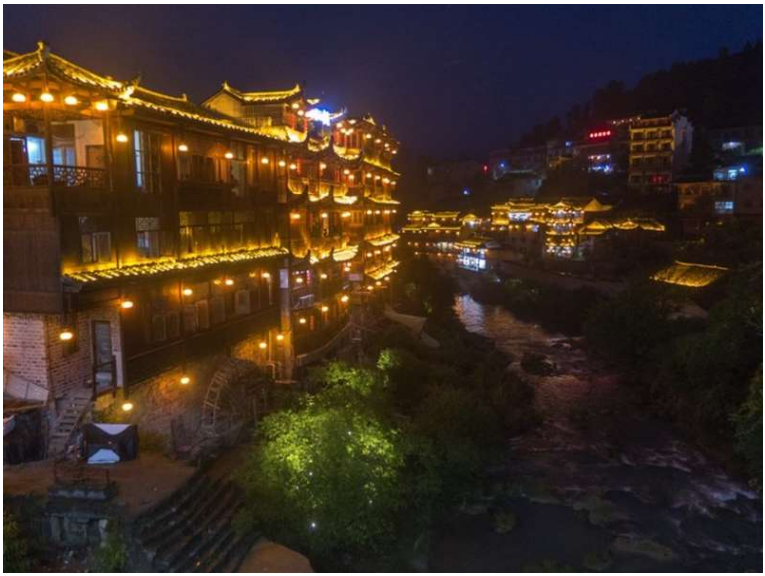
> Interactive or embedded content: _bNP2rulSeA



格实惠

citi

绿豆老冰棍
儿时的味道
热线
73 8824



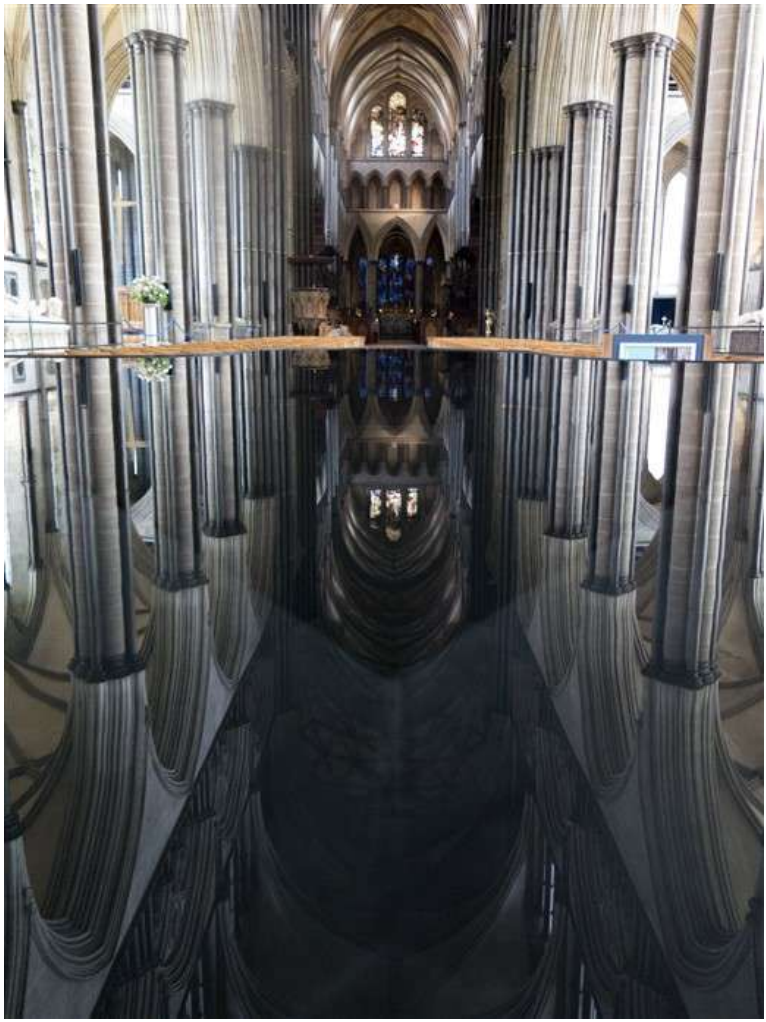
USA

红太阳
红日东升山河
东风浩荡

England 2013, 2015, 2017

Video, photos

> Interactive or embedded content: t3g4mSYj7lc



Tussa
LONDON

South
Bank
Tower
Living
high

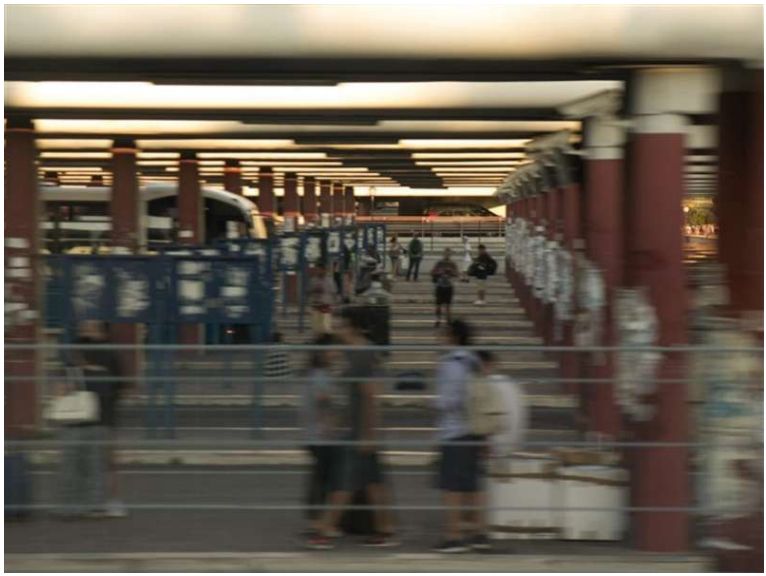
Italy 2016

Video, photos

> Interactive or embedded content: jFueqe5Gn60

PAE VECCIU
SP 4454

PAE VECCIU
SP 4454



Morocco 2016

Video, photos

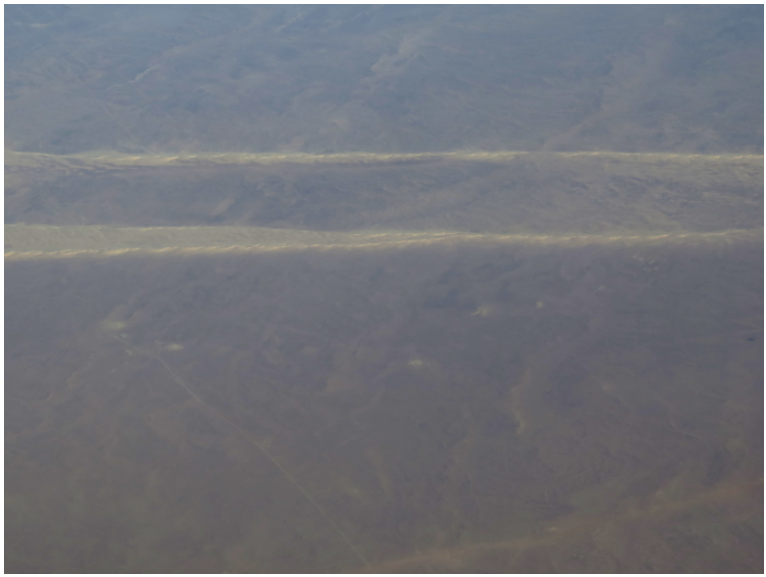
> Interactive or embedded content: tZA1g0BR_Us

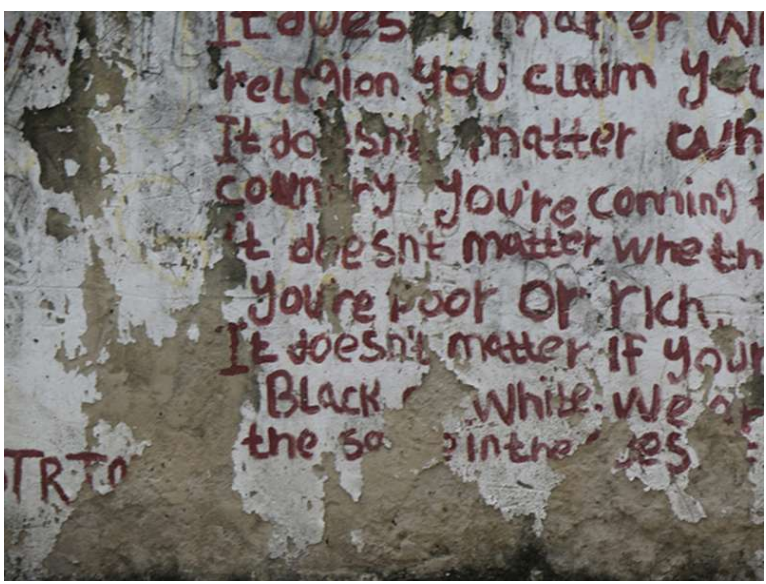
MILLIONS

Kenya 2012–2015

Video, photos

> Interactive or embedded content: wo4F1jfPcY8




religion you claim
matter
you're coming
It doesn't matter whe
you're poor or rich.
It doesn't matter if
Black
White.

Indians

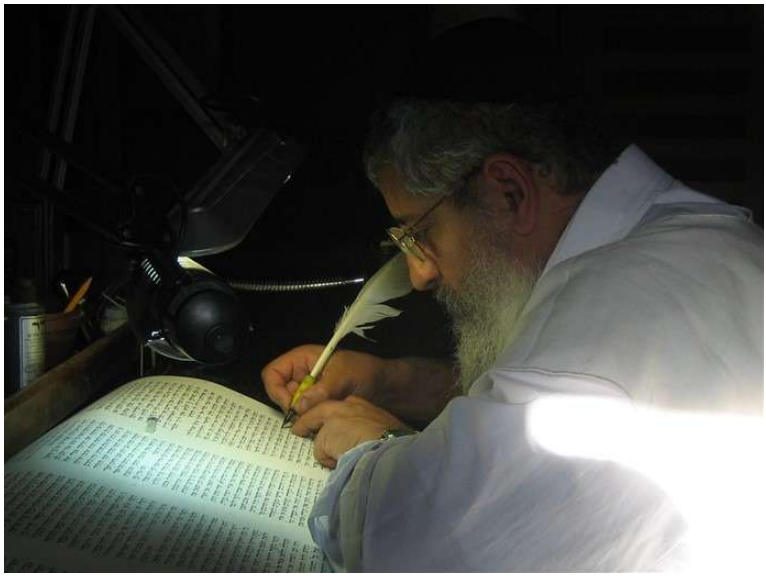
Portugal 2014

Photos

Israel 2012

Photos

DO NOT FEED THE IBEX AND OTHER WILDLI
Human food is harmful to them and may cause painful



Canary Islands 2012

Photos

Egypt 2012

Photos